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No. 05-1008

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

BROADCAST INNOVATION, L.L.C. and IO RESEARCH PTY LTD

Plaintiffs-Appellants,

v.

CHARTER COMMUNICATIONS, INC.

Defendant-Appellee,

and

COMCAST CORPORATION,

Defendant.

Appeal from the United States District Court for the District of Colorado
in case no. 03-WY-2223 AJ(BNB), Judge Alan B. Johnson

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CERTIFICATE OF INTEREST

Counsel for Appellants, Broadcast Innovation, L.L.C. and IO Research Pty Ltd, certify the following:

1. The full name of every party represented by me in this Appeal is:

 Broadcast Innovation, L.L.C.
 Io Research Pty Ltd

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

 n/a

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the parties represented by me are:

 n/a

4. The names of all law firms and the partners, shareholders, or associates that appeared for the party now represented by me in the trial court or agency or are expected to appear in this court are:

December 16, 2004.

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STATEMENT OF RELATED CASES

No other appeals are or were before this or any other appellate court. There is no pending case known which will directly affect this Court's decision in this appeal. This appeal will, however, directly affect a related case pending before Judge Alan B. Johnson in the United States District Court for the District of Colorado, case no. 01-WY-2201 AJ(BNB), styled Broadcast Innovation, LLC v. EchoStar Communications Corporation. The related case is currently stayed and awaits this Court's resolution of issues raised herein.

STATEMENT OF JURISDICTION

This is an appeal from the following:

1. September 17, 2004 Judgment (attached as Exhibit "A");

2. August 3, 2004 Order Granting Defendant's Motion for Summary Judgment of the Invalidity of U.S. Patent 6,076,094 (attached as Exhibit "B");

3. September 13, 2004 Order Denying Plaintiffs' Motion for Reconsideration (attached as Exhibit "C");

4. January 6, 2003 Order on Issues of Claim Construction (entered in Civil Action No. 01-WY-2201-AJ (BNB), styled *Broadcast Innovation LLC v. EchoStar Communications Corporation*, and incorporated into this litigation by the March 22, 2004 Stipulated Order Regarding Claim Construction Procedure) (attached hereto as Exhibit "D"); and

5. August 29, 2003 Order on Appeal of Magistrate's Claim Construction of the '094 Patent (entered in Civil Action No. 01-WY-2201-AJ (BNB), styled *Broadcast Innovation LLC v. EchoStar Communications Corporation*, and incorporated into this litigation by the March 22, 2004 Stipulated Order Regarding Claim Construction Procedure) (attached hereto as Exhibit "E").

Plaintiffs-Appellants' Notice of Appeal was filed pursuant to Rule 4(a) of the Federal Rules of Appellate Procedure on September 28, 2004. The district

court had original jurisdiction over this case pursuant to 28 U.S.C. §1338(a). This Court has jurisdiction over this appeal pursuant to 28 U.S.C. §1295(a)(1).

STATEMENT WITH RESPECT TO ORAL ARGUMENT

Because this appeal involves the application of statutory and regulatory law to unique facts, as well as matters of claim construction in a highly technical field, Plaintiffs-Appellants request oral argument.

TO THE U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT

I. STATEMENT OF ISSUES

A. Did the district court err in concluding, as a matter of law, that the patent-in-suit is invalidated by its related 1993 PCT application based on an analysis of 35 U.S.C. § 120 and 37 C.F.R. § 1.78 that conflicts with the language of the regulation and fails to accord due deference to the examiner's decision to issue the patent as written?

B. Did the district court err in the construction of the claim terms "inserter" (claim 29) and "decoder" (claim 22) by limiting the terms to the preferred embodiment disclosed in the '094 patent specification?

C. Did the district court err in the construction of "to a television set" (claim 8) by deviating from the phrase's ordinary meaning and excluding an embodiment disclosed in the '094 patent specification?

II. STATEMENT OF THE CASE

This is a case of patent infringement in which Appellants allege that Charter Communications, Inc. ("Charter") infringes claims 8, 15, 22, and 29 of U.S. Patent No. 6,076,094 (the "'094 patent").[1] Appellants filed suit on November 7, 2003 in the United States District Court for the District of Colorado, under case no. 03-WY-2223 AJ(BNB). (A-001644 - 1647.)

Charter moved for summary judgment of invalidity on May 3, 2004. (A-001787 - 1803.) Charter argued that the '094 patent is invalidated by its related 1993 Patent Cooperation Treaty ("PCT") filed in Australia. The district court agreed and, by Order dated August 3, 2004, granted Charter's motion on this ground. (A-000002 - 0026.)

Appellants' Motion for Reconsideration (A-003896 - 3907, A-003908 - 3923, A-004019 - 4080) was denied by Order dated September 13, 2004 (A-000117 - 0128). The district court entered its Judgment on September 17, 2004. (A-000001.) Appellants now request that this Court reverse and remand the district court's Judgment and, further, correct errors made by the district court in the construction of certain terms found in the asserted claims of the '094 patent.

On November 9, 2001, Appellant Broadcast filed suit against EchoStar Communications Corporation, among others, in a case (the "EchoStar case")

[1] Appellants made similar infringement allegations against Comcast Corporation ("Comcast"). Comcast settled with Appellants on or about June 28, 2004.

related to the instant action.[2] The EchoStar case involved infringement of the same asserted claims of the '094 patent.[3] (A-000236 - 0243.) It was in the EchoStar case that the asserted claims of the '094 patent were construed. (A-000027 - 0087, A-000088 - 0116.)

By *Stipulated Order* entered on March 22, 2004 (A-000129 - 0133), the district court directed that the magistrate judge's January 6, 2003 *Order On Issues of Claim Construction* (A-000027 - 0087), relative to the '094 patent, together with the district court's *Order* dated August 29, 2003 (A-000088 - 0116), both issued in the EchoStar case, apply in this case. The August 29, 2003 *Order* is, in essence, the district court's detailed review of the magistrate judge's '094 patent claim construction rulings. The Echostar case is now stayed pending this Court's ruling on the validity of the '094 patent.

Appellants take modest issue here with the claim construction orders. As argued, *infra*, Appellants contend that the district court misconstrued three claim terms.

[2] *Broadcast Innovation, L.L.C. v. EchoStar Communications Corp.*, Civil Action No. 01-2201-AJ (BNB), in the United States District Court for the District of Colorado.

[3] The EchoStar case also involved a second patent not practiced by, thus not asserted against, Charter.

III. STATEMENT OF FACTS

A. The '094 Patent Technology.

The '094 patent involves, *inter alia,* enhanced television features and interactive television technology that enable various types of data, such as text, video, audio or web pages, to be broadcast to television viewers in the frequency ranges allotted to television broadcasters.[4] This technology permits viewers, for example, to receive and to interact with information such as news, stock reports, sports scores or weather information on their television screens by accessing the information with a typical remote control. Digital cable companies such as Charter are recognizing substantial new sources of revenue, attracting new customers and retaining existing customers by incorporating interactive features enabled by technology and methods disclosed in the '094 patent into the television programming that they offer and delivering them concurrently with their television programs.

The '094 patent details, *inter alia*, how a carrier signal is modulated with a television signal and then broadcast using a transmitter. In one embodiment, the patent describes how data may be placed into an unused portion of an analog

[4] The '094 patent expressly discloses an embodiment whereby data is broadcast over a wired network comprised of fiber optic cables, just like Charter's systems, to wit, "TV broadcast signal 215 can be delivered by any one of a number of known methods including VHF/UHF transmission, microwave transmission, satellite transmission, **fibre optic transmission**." ('094 patent, Col. 15, lines 50-54) (emphasis added).

television signal known as the vertical blanking interval (VBI). In other embodiments, the '094 patent teaches that data may be transmitted in a digital data stream where digital information is inserted into a data stream that is modulated onto a carrier signal.

Before being broadcast, the data resides as records in a database. A data stream is constructed from records of the database and is broadcast over a carrier signal. The data that is broadcast over the carrier signal can be received and processed either by a set-top box, television or computer. The receiver includes the capability to demodulate the carrier signal to retrieve the television signal and/or the data and to store the data in a database in or connected to the receiver. The data may be displayed on the television screen in accordance with the television programming or in response to a user command.

Appellant Io Research is the owner of the '094 patent. Appellant Broadcast is the exclusive licensee.

B. The '094 Patent's History.

Appellant Io Research was founded in 1992 by one of the '094 patent inventors, Andrew Cohen. Io Research is an affiliate of the largest television network in Australia. Its essential purpose was, and is, to research and develop enhanced datacast products and services that, among other things, could be used by the station in its broadcasting endeavors. The '094 patent arose out of the need

perceived by Mr. Cohen and Io Research to develop a way to deliver the most data in the most efficient way, without limitation as to the format(s) (or type(s)) of the data or the sorts of services that could be provided.

Io Research filed its first patent application involving the subject technology on November 27, 1992 in Australia (No. PL 6080). (A-001806.) Within the next year, Io Research filed five additional, related Australian applications. (A-001806.) The six applications matured into a single patent.

On November 26, 1993, Io Research filed its international PCT application designating the United States (No. PCT/AU93/00607). (A-001806.) The PCT application entered the national stage on July 18, 1995 under 35 U.S.C. § 371. (A-001882, A-003915 - 3917.) That initial U.S. application (No. 08/436,336) is the grandparent to the application maturing into the '094 patent and is the application to which the '094 patent specifically claims priority in the first sentence of its specification. (A-000204.)

By the time the application maturing into the '094 patent (the "'094 application") was filed (May 21, 1999), the U.S. grandparent application (the national stage of the international PCT application) had issued as U.S. Patent No. 5,737,595 (the "'595 patent"). A patent based on the U.S. parent application had not been issued. This parent application was initially co-pending with the '094 application.

Anticipating the issuance of the U.S. parent patent during the pendency of the '094 application, the applicants stated in their Transmittal Letter, "Upon the issuance of the parent application [sic], Applicants will amend the specification to include the U.S. Patent No. of the parent." (A-004053 – 4056.)

In the initial Office Action Summary, the Examiner reminded the applicants that "[a]n application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification (37 CFR 1.78)." (A-004057 – 4062.) As the district court pointed out in its Order (A-000011), the applicants responded with an amendment to the specification, to wit:

> After the title and before "Technical Field" please insert: -- This application is a divisional of U.S. Patent Application Serial No. 09/054,896, filed April 3, 1998, now patented as U.S. Patent No. 5,999,934, which is a continuation of U.S. Patent Application Serial No. 08/436,336, filed July 18, 1995, now patented as U.S. Patent No. 5,737,595 --

(A-004063 - 004064.)

As ultimately issued, the first sentence of the '094 patent states as follows:

> Division of application No. 09/0545,896, Apr. 3, 1998, Pat. No. 5,999,934, which is a continuation of application No. 08/436,336, Jul. 18, 1995, Pat. No. 5,737,595.

C. The District Court's Reasons for Invalidating the Patent.

The central issue in this case arises from the fact that the patent specification's first sentence did not go on to make reference to the earlier PCT

application, of which the '595 application was the national stage. Even though the applicant made reference to the 1993 PCT application in multiple other places,[5] thus making clear it was claiming priority to that date, the district court interpreted the version of 37 C.F.R. § 1.78(a)(2) in effect at the time as requiring that a reference to the PCT application and its filing date be included in the sentence at the beginning of the specification. It therefore held that the 1993 PCT application, which was on file for a year prior to the filing of the first United States application in 1995, invalidated the '094 patent.

In so ruling, the district court rejected the argument that the patent complied with the applicable statutory requirements in 35 U.S.C. § 120 and thus the regulation could not properly be applied to render it invalid. (A-000016 – 000021.) It also rejected the argument that the patent became valid when section 1.78(a)(2) was amended within a few months so that it was no longer necessary to include the supposedly missing information in the first sentence of the specification. (A-000021 – 000022.)

Appellants then filed a motion for reconsideration, which the court treated as a motion under Rule 59(e). Among the points made by Appellants was the argument that section 1.78(a)(2), properly read, allowed an applicant to refer back

[5] *See* A-003560 (form initialed by examiner); A-004055 - 004056 (transmittal letter).

to a U.S. application by application number and receive the benefit of that application's filing date, even if that application's filing date is, by operation of law, the earlier filing date of a PCT application not mentioned in the sentence. The district court, in an order denying reconsideration, commented that this argument was untimely raised, but proceeded to address it on the merits for more than three pages. (A-000124 – 000127.) It reasoned that the interpretation offered by appellants should be rejected because, in the court's view, it runs counter to a policy of allowing the public to determine the claimed priority date of any patent by "viewing the face of the patent." (A-000127.)

IV. SUMMARY OF ARGUMENT

A. Priority Date -- The '094 Patent Claims Priority to November 26, 1993.

The district court concluded that the '094 patent is invalidated by its related 1993 PCT application, reasoning that 37 C.F.R. § 1.78(a)(2) (1999) required disclosure in the first sentence of the specification of any application that the applicant intended to claim the benefit of. That reasoning was flawed because the applicant did comply fully with section 1.78(a)(2) as it was phrased at the time and thus was entitled to claim the benefit of the 1993 filing date.

To begin with, although the '094 patent, in its first sentence, does not refer expressly to the PCT application, it specifically claims priority to its U.S. grandparent application (No. 08/436,336). Because the filing date of the '094

patent's U.S. grandparent application is **the same** as the filing date of the PCT application, the '094 patent cannot be invalidated based on the 1993 PCT application. Indeed, by referring in the first sentence to the grandparent application, which had by then culminated in the '595 patent, the '094 patent went further than the language of section 1.78(a)(2) actually required. That regulation only required disclosure in the first sentence of "copending" nonprovisional and international applications of which benefit was claimed. As written, therefore, it required only specific reference to the copending parent application, not the grandparent.

In sum, no statute, regulation, or other authority requires that the '094 patent refer *anywhere* to the PCT application once it referred to the '595 application that, as a matter of law, had the same filing date. And the rules governing the first sentence in section 1.78(a)(2) did not even require that disclosure, since the application that led to the grandparent '595 patent was not then still copending. The district court chose to read the requirement of referring to the PCT application and the 1993 filing date into section 1.78(a)(2) based on its own erroneous understanding of the underlying purpose of the first sentence disclosure requirement. But there is no justification for invalidating the patent on the basis of such a manufactured technical form requirement.

B. Claim Construction – Limitations from the Specification May Not be Read Into the Claims.

In the claim construction orders issued in this case, the district court limited certain terms to the preferred embodiment disclosed in the specification, notwithstanding the principle that limitations from the specification may not be read into the claims. Specifically, the district court's constructions of "inserter" and "decoder" require the insertion and extraction of data in the vertical blanking interval of a television signal, improperly excluding digital embodiments. Further, the district court impermissibly limited the phrase "to a television set" to "directly to a television set." This construction neglects the plain and ordinary meaning of the word "to" and otherwise excludes an embodiment disclosed in the specification.

V. ARGUMENT

The district court's ruling invalidating the '094 patent was erroneous because, while purporting to be a faithful application of the literal language of the applicable regulation, it actually disregarded that language. The district court refused to read the regulation as it was actually phrased, relying on case law that dealt with an entirely different version of the regulation and on the court's intuitions about how best to serve what it saw as the "policy" or "intention" of the regulation. But that kind of atextual analysis cannot justify denying Appellants the full benefit of an otherwise lawful and valuable patent.

A. The District Court Erred in Concluding, as a Matter of Law, That the Patent-in-Suit is Invalidated by its Related 1993 PCT Application.

1. Applicable standard of review.

This court reviews issues of statutory interpretation and grants of summary judgment *de novo*. *Studiengesellschaft Kohle m.b.H. v. Shell Oil Co.*, 112 F.3d 1561, 1564 (Fed. Cir. 1997). It reviews the district court's grant of summary judgment of invalidity without deference. *TypeRight Keyboard Corp. v. Microsoft Corp.*, 374 F.3d 1151, 1157 (Fed. Cir. 2004). "Whether a reference was published prior to the critical date, and is therefore prior art, is a question of law" *TypeRight*, 374 F.3d at 1157; *N. Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 936 (Fed. Cir. 1990). The Court reviews a denial of a motion to alter or amend under Fed. R. Civ. P. 59 for abuse of discretion. *Minshall v. McGraw Hill Broadcasting Co.*, 323 F.3d 1273, 1287 (10th Cir. 2003), *see Univ. of West Va. v. Smith*, 342 F.3d 1290, 294 (Fed. Cir. 2003) (standards for review of denial of Rule 59 motions in this Court are governed by law of each regional circuit).

2. The first sentence of the specification in the '094 patent properly referred only to a nonprovisional application that was the national stage of a 1993 international application and had a priority date based on that earlier international application.

The district court's ruling that the '094 patent is invalid purported to be based on a faithful application of the technical requirements of the applicable regulation, § 1.78(a)(2), as it was phrased during the pendency of the application.

The court concluded that the regulation should be read as requiring disclosure, in the "first sentence" of the specification, of every prior application on which the applicant was relying -- back to and including the 1993 PCT application filed in Australia. Having so concluded, the court was unmoved by pleas that the "'094 Application comport[ed] with the goals . . . of the 1997 Regulation" because it mentioned everything but the PCT application in the first sentence and disclosed reliance on the PCT application in other places. (A-000022.) And it refused to engage in any "administrative second-guessing" of the importance of enforcing the regulation as it thought it should be read, even if that refusal meant denying patentees of all rights in their patents. (A-000024.)

The problem is that, in so doing, the district court *was not enforcing the literal terms of the regulation at all.* First, the regulation, as written, only demanded disclosure in the first sentence of "*copending* nonprovisional applications or international applications" on which the applicant was relying to establish an earlier priority date. 37 C.F.R. § 1.78(a)(2) (1999) (emphasis added).[6] Here, both the grandparent application that culminated in the '595 patent and the 1993 PCT application were no longer copending. Second, even assuming that section 1.78(a)(2) did require disclosure in the first sentence of every prior application on which the applicant was relying to establish a priority date for the

[6] Disclosure of the copending applications, in turn, would allow a person to research that prior application to see what priority date was claimed there.

new application, it still did not require specific reference to the 1993 PCT application. To the contrary, by its terms, it gave an applicant in a situation like the one presented here a choice of disclosing *either* the nonprovisional application constituting the national stage of a prior PCT application, without disclosing any claimed filing date, *or* the prior international application, with its filing date.

The district court, however, withheld the former option on the ground that it would not serve what the court discerned to be the regulation's "intention" and "policy" that the "public, when viewing the face of the patent, can determine the relationships between the prior applications and the present patent." (A-0000127.) It also relied on a case applying a prior version of the regulation in which the option of providing information about a prior nonprovisional application without its filing date did not yet exist.

So what this case really involves is a purportedly hypertechnical application of a regulation that, upon close scrutiny, is not hypertechnical at all. The court, in

fact, rewrote the regulation to serve what it saw as its underlying purpose. That kind of judicial rewriting cannot serve as a justification for invalidating a patent.[7]

a. The district court had no basis for demanding disclosure in the first sentence of any application that was not "copending."

The first problem with the district court's reading of the rule was the decision to demand disclosure of all prior applications on which the applicant was relying to establish a 1993 priority date for the new application. Section 1.78(a)(2), as written in 1999, stated that an application "claiming the benefit of

[7] The District Court indicated that Appellants raised the argument that the '094 patent actually complied with 37 C.F.R. § 1.78(a)(2) (1999) for the first time as part of their post-judgment motion for reconsideration. (A-000124.) For several reasons, that statement does not constitute a reason to avoid addressing the merits of the argument here. *First*, although commenting that the argument was untimely raised, the district court went on to address it on the merits at some length. That by itself rendered the argument reviewable in this Court. *See CPG Products Corp. v. Pegasus Luggage, Inc.*, 776 F.2d 1007, 1010 (Fed. Cir. 1985) (accepting in principle, but rejecting on the facts presented, the argument that the district court's denial of a Rule 59 motion included "consideration and determination of the 'best mode' issue on its merits sufficient to render it available . . . on appeal"). *Second*, it is not at all clear that the District Court was correct in treating this as a new argument, rather than a refinement of a prior argument, since Appellants plainly did argue to the district court from the beginning that the disclosures in the first sentence of the patent satisfied all legal requirements. *Third*, even if the refinement is treated as a new argument, this Court has the discretion to address it under the doctrine of plain error. *See Finch v. Hughes Aircraft Co.*, 926 F.2d 1574, 1580 (Fed. Cir. 1991) (distinguishing between cases where party completely failed to oppose the action of the District Court and cases involving "changes of legal theory on appeal," which the appellate court may choose to entertain in exceptional cases). *Finally*, at a minimum, the Court has authority to review the denial of the Rule 59 motion itself for abuse of discretion. Such an abuse may be found where, as here, the court relied primarily on a legal understanding of the merits that was erroneous.

one or more prior filed *copending* nonprovisional applications or international applications designating the United States of America must contain or be amended to contain in the first sentence of the specification following the title a reference to each *such* prior application." (Emphasis added.) Thus, on its face, the rule did not require disclosure of a grandparent application on which the applicant was relying, because that application was not "copending" since the grandparent patent had issued.

Under 35 U.S.C. § 120, of course, the entire "chain of copendency" on which the applicant relies has to be disclosed somewhere in the application, *Sampson v. Ampex Corp.*, 463 F.2d 1042, 1044 (2d Cir. 1972), but that certainly occurred here, *see* pp. 21-22 *infra*. The dispute is about whether the entire chain must be included in the specification's first sentence. The plain fact is that section 1.78(a)(2) did not demand that, but focused instead on initial disclosure of copending applications on which the applicant relied. But the district court rewrote the regulation as if it did.

b. Even if the regulations could be read as requiring disclosure in the first sentence of all prior applications on which the applicant relied, the applicant did so here by referring to the 1995 grandparent application, which, by operation of law, bore the same 1993 filing date as the international PCT application.

Even if section 1.78(a)(2) as written in 1999 were read to require disclosure in the first sentence of all applications in at least one integral chain going back to

the priority date being claimed, it still could not properly be read to demand disclosure in that sentence of the 1993 PCT application. To see why that is so, it is important to understand how that application related to the subsequent U.S. applications that were disclosed in the first sentence.

The international PCT application designating the United States (PCT/AU93/00607) was filed on November 26, 1993 and claims priority to November 27, 1992. (A-003914.) Pursuant to that designation, the PCT application entered the **national stage** as the '094 patent's U.S. grandparent application (No. 08/436,336) (hereinafter the "'595 patent application") on July 18, 1995 under 35 U.S.C. § 371.[8] (A-003915.)

Upon filing, the '595 patent application was specifically verified as a national stage application by the Examiner. (A-003916.) As such, the resultant '595 patent is deemed to have **the same** November 26, 1993 filing date as the PCT application.[9] *See* 35 U.S.C. § 363; *see also* Patent Cooperation Treaty (PCT) Article 11(3) ("[A]n international filing shall have the effect of a regular national application in each designated State as of the international filing date, which date shall be considered to be the actual filing date in each designated State").

[8] The U.S. grandparent application matured into U.S. Patent No. 5,737,595 (the "'595 patent").

[9] The '595 patent lists, on its face, the filing date as November 26, 1993. (A-003917.)

This effect is emphasized in the Manual of Patent Examining Procedure ("MPEP"), which reads, in pertinent part:

> An international application designating the U.S. has two stages (international and national) **with the filing date being the same in both stages**. Often the date of entry into the national stage is confused with the filing date. **It should be borne in mind that the filing date of the international stage application is also the filing date for the national stage application**.

MPEP § 1893.03(b) (7th ed., 1st rev., Feb. 2000) (emphasis added). (A-003918 - 3923.)[10]

Charter falsely characterized this legal principle to the lower court as permissive, stating, without authority, that "a national stage application can be entitled to the same filing date as an international application." (A-003943.) (emphasis added) There is no permissive language in 35 U.S.C. § 363.[11] There is

[10] *See also* Manual of Patent Examining Procedure § 1893.03(c) at 1800-119 (7th ed., Rev. 1, Feb. 2000) ("Note: a national stage application filed under 35 U.S.C. 371 may not claim the benefit of the filing date of the international application of which it is the national stage **since its filing date is the date of filing of that international application**. *See also* MPEP § 1893.03(b). Stated differently, since the international application is not an earlier application **(it has the same filing date as the national stage),** a priority claim in the national stage to the international application is inappropriate.") (emphasis added). (A-004033 – 4052, at A-004048 - 4050.)

[11] "An international application designating the United States shall have the effect, from its international filing date under Article 11 of the treaty, of a national application for patent regularly filed in the Patent and Trademark Office...." (emphasis added).

no permissive language in Patent Cooperation Treaty (PCT) Article 11(3).[12] There is no permissive language anywhere concerning this principle. The national stage application filing date is the filing date of the international PCT application.[13]

It follows that it was sufficient for the first sentence of the '094 patent to claim priority to the '595 patent. In so doing, the '094 patent claimed priority to a filing date of November 26, 1993, **not** July 18, 1995. July 18, 1995 is simply the national stage commencement date. Thus, the holding on page 23 of the Court's Order that "[t]he July 18, 1995 priority date claimed by the '094 Patent Application ... is more than one year after the June 9, 1994 foreign publication date of the 1993 PCT Application" is not correct. (A-000024.) Because the '094 patent claims priority to the national stage '595 patent in the first sentence of the specification, and the '595 patent has a **November 26, 1993** filing date, it cannot, as a matter of law, be invalidated by the PCT application of the same date.

By claiming priority to its U.S. grandparent, the '094 patent complied strictly both with 35 U.S.C. § 120 and with a broad reading of 37 C.F.R. § 1.78(a)(2) (1999) -- *i.e.*, a reading demanding first sentence disclosure of an entire chain of prior applications going back to the priority date being claimed. The

[12] "[A]n international filing shall have the effect of a regular national application in each designated State as of the international filing date, which date shall be considered to be the actual filing date in each designated State" (emphasis added).

[13] *See* Manual of Patent Examining Procedure § 1893.03(b) at 1800-117 (7th ed., Rev. 1, Feb. 2000). (A-004048.)

district court's ruling that the applicant disregarded a legal duty to file an amendment adding a "reference of the 1993 PCT Application to the specification language" (A-000012) was simply erroneous.

Section 120. To begin with, although Charter so argued in the district court, there is no statutory requirement in section 120 that the '094 patent make reference to the international PCT application -- although it did in fact make such a reference, *see infra*. Section 120 is plainly entitled "Benefit of earlier filing date in the United States" (emphasis added), and deals with the circumstance in which an applicant claims an entitlement "to the benefit of the filing date of a prior nonprovisional application." *See* Manual of Patent Examining Procedure § 201.11 at 200-51 (7th ed., Rev. 1, Feb. 2000). (A-004038.)

The operative language of Section 120 is as follows:

> An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application ***shall have the same effect***, as to such invention, ***as though filed on the date of the prior application***, ... ***if it contains or is amended to contain a specific reference to the earlier filed application***.

35 U.S.C. § 120 (emphasis added). As acknowledged by the district court and set forth *supra*, the '094 patent applicants amended the first sentence of the specification to contain specific references to the prior nonprovisional applications

to which the applicants claimed benefit, namely the U.S. parent and grandparent applications.

In briefing to the district court, Charter culled from the Manual of Patent Examining Procedure ("MPEP") § 201.06(d) the following language:

> Where an application claims a benefit under 35 U.S.C. 120 of a chain of applications, the application must make a reference to the first (earliest) application and every intermediate application. [Citations.] In addition, every intermediate application must also make a reference to the first (earliest) application and every application after the first application and before such intermediate application.

(A-003935 - 3936.) Charter then tried to parlay this MPEP excerpt into a Section 120 mandate that the '094 patent must "refer to each application in the entire chain leading back to the 1993 PCT Application." (A-003936.)

But as a preliminary matter, the Foreword of the MPEP makes clear that "[t]he Manual does not have the force of law or the force of the rules in Title 37 of the Code of Federal Regulations." (A-004037.) Moreover, nothing in this reference demands that the applicant disclose a prior international application in addition to disclosing the nonprovisional application that constituted the national stage of the prior international application.

In any event, as mentioned above, the '094 application also mentioned the 1993 PCT application in several places. The transmittal letter stated that the application related back to the '595 application, which in turn claimed priority from the 1993 PCT application, providing all of the pertinent details. (A-004055 –

004056.) And another form in the prosecution history, which was provided to the district court in Appellants' opposition to the motion for summary judgment on invalidity and which bears the examiner's initials, repeats this information. (A-003560). Because section 120 does not specify a particular location for the reference back, these documents would satisfy the statute even if it were read as requiring disclosure of both the '595 patent application and the prior PCT application, both of which in fact had the same filing date by operation of law.

Section 178(a)(2). Rule 1.78(a)(2), as written during the pendency of the '094 patent application, stated in pertinent part:

> [A]ny nonprovisional application claiming the benefit of one or more prior filed copending nonprovisional applications **or** international applications designating the United States of America must contain or be amended to contain in the first sentence of the specification following the title a reference to each such prior application, identifying it by application number (consisting of the series code and serial number) **or** international application number and international filing date and indicating the relationship of the applications.

37 C.F.R. § 1.78(a)(2) (1997) (emphasis added). As applied to the '094 patent, Rule 1.78 would read:

> [A]ny nonprovisional application claiming the benefit of one or more prior filed copending nonprovisional applications ~~or international applications designating the United States of America~~ must contain or be amended to contain in the first sentence of the specification following the title a reference to each such prior application, identifying it by application number (consisting of the series code and serial number) ~~or international application number and international filing date~~ and indicating the relationship of the applications.

In other words, even if the duties imposed by the regulation are not understood to be confined to applications still copending on the filing date, the regulation still explicitly gave the applicant the choice, in this situation, of not referring to a prior international application, even if claiming the benefit of that application, as long as the applicant still referred to a nonprovisional United States application carrying with it the same filing date.

When attempting to address Appellants' arguments in the court below, Charter made a determinative error. It stated, "As made clear by the patent regulations and the MPEP provision cited by Plaintiffs, the '595 Patent Application is not merely a 'U.S. application' but the national stage of an international application." (A-003945.) Charter then made the false assumption that the grandparent application, as the national stage, is treated as an international application for purposes of Rule 1.78.[14]

For purposes of the issue before the Court, the national stage of an international PCT application is no different than any other domestic application. Rule 1.78 distinguishes between "nonprovisional applications" and "international applications." The Code of Federal Regulations defines each of these terms. A

[14] *See, e.g.*, A-003945, where Charter states in reference to the requirements of Rule 1.78, without support, that "[b]ut for international applications **(including national stages of international applications)**, the reference must contain the international application number and international filing date." (emphasis added).

"nonprovisional application" is "a national application[15] for patent which was either filed in the Office under 35 U.S.C. 111(a), **or which entered the national stage from an international application** after compliance with 35 U.S.C. 371." 37 C.F.R. § 1.9(a)(3) (1999) (emphasis added). (A-004065.) An "international application" is "an international application for patent filed under the Patent Cooperation Treaty **prior to entering national processing** at the Designated Office stage." 37 C.F.R. § 1.9(b) (1999) (emphasis added). (A-004065.)

In other words, when a PCT application enters the national stage, the national stage application is, by definition, a nonprovisional application. The '094 patent claims the benefit of such nonprovisional application. Thus, to satisfy the express dictates of Rule 1.78, the '094 patent specification needed only to identify the application numbers of the nonprovisional applications and their relationship to the '094 patent. *See* 37 C.F.R. § 1.78(a)(2) (1997). Charter acknowledged as much when it stated, "In this way the regulation contains different reference requirements for domestic versus international applications. For standard domestic applications, a reference to the application number is acceptable." (A-003945.) The '094 patent referenced the application numbers for the U.S. parent and

[15] "A national application as used in this chapter means a U.S. application for patent which was either filed in the Office under 35 U.S.C. 111, **or which entered the national stage from an international application** after compliance with 35 U.S.C. 371. 35 U.S.C. 371." 37 C.F.R. § 1.9(a)(1) (1999) (emphasis added). (A-004065.)

grandparent applications, as well as their respective relationships to the '094 patent. (A-000204.) Nothing more was required.[16]

The district court, however, effectively rewrote the regulation to require that the applicant, when relying on a prior PCT application that later blossomed into a U.S. national stage application, to refer to both in the first sentence. In so doing, the court relied on case law, the MPEP, and its own intuitions about the purposes being served by the regulation. None justified amending the rule to create a requirement the applicant had no reason to know was there.

First, as to case law, the court relied on *Sampson v. Ampex*, 463 F.2d 1042 (2d Cir. 1972), for the proposition that Rule 1.78(a)(2) requires disclosure of "information that would enable a person searching the records of the Patent Office to determine with a minimum of effort the exact filing date upon which a patent applicant is relying to support the validity of his application." (A-000125 - 000126) (quoting 463 F.2d at 1045). The only problem is that *Sampson* was analyzing an earlier version of the regulation. By the time the '094 application came along, the regulation had been amended in 1995 to delete any requirement of

[16] Charter made an issue in the court below of the fact that the first sentence included a reference to "July 18, 1995," the date of the national stage filing, arguing that this constituted an affirmative assertion that the relevant "filing date" was July 18, 1995. But nowhere did the sentence indicate that this was the filing date to which the applicant claimed priority. *See* Manual of Patent Examining Procedure § 1893.03(b) at 1800-117 (7th ed., Rev. 1, Feb. 2000) ("Often the date of entry into the national stage is confused with the filing date.") (A-004048.)

disclosing the filing date of a prior nonprovisional application that the applicant is claiming the benefit of.[17] Presumably, this was because it is easy enough for the public to ascertain the filing date on which the applicant was relying from the face of the parent or grandparent patent, or by checking the PTO website, or through other means.[18]

Second, the district court found persuasive MPEP § 201.11. That section states:

> Where a nonprovisional application is claiming the benefit under 35 U.S.C. 120 of a prior national stage application filed under 35 U.S.C. 371, a **suitable reference** would read "This application is a continuation of U.S. Application NO. 08/---, filed ---, which was the National Stage of International Application No. PCT/DE95/---, filed ---."

Manual of Patent Examining Procedure § 201.11 at 200-54 (7th ed., Rev. 1, Feb. 2000) (emphasis added). (A-004041.) The court commented, after quoting this language, that the "*requirements* are quite clear." (A000126) (emphasis added).

In fact, however, this section of the MPEP does not impose any "requirements." Leaving aside the fact that no portion of the MPEP has the force

[17] *See* 60 Fed. Reg. 20225 (April 25, 1995). *Compare* 37 C.F.R. § 1.78(a)(2) (1994) (requiring filing date for all prior applications), *with* 37 C.F.R. § 1.78(a)(2) (1999) (requiring filing date only for prior international applications). The Court also relied on *Simmons v. Bombardier*, 2004 U.S. Dist. LEXIS 15089 (N.D. Utah 2004). But that case dealt with the entirely different question whether the patentee could claim priority back to earlier patents when the specification *mischaracterized* the relationship between the patents as a continuation-in-part.

[18] On the other hand, it would seem that the reason a priority reference to an international application must show the filing date is the potential added difficulty of locating the international filing.

of law, *see* p. 21 *supra*, this particular section plainly states that the sample reference would be considered "suitable." It is a suggestion. To interpret the MPEP excerpt in any other way would clearly enlarge an applicant's statutory and regulatory obligations and run afoul of the MPEP's referential or instructive purpose. *See* MPEP Foreword (noting, *inter alia*, that the MPEP "is published to provide ... examiners, applicants, attorneys, agents ... with a reference work on the practices and procedures relative to the prosecution of patent applications It contains instructions to examiners, as well as other material in the nature of information and interpretation...") (A-004037.)

Finally, the court fell back to reliance on its understanding of the "intention" and "policy" of the regulation as allowing the public to see, on the face of the patent and in its first sentence, the relationships with prior patents and the filing date being relied upon. (A1000127.) But though section 1.78(a)(2) does, of course, serve a limited public notice function (in respect only of copending applications), that does not justify importing into it a requirement of disclosure of a prior PCT application and filing date, when the regulation plainly allows a simple reference to the prior nonprovisional application that constituted the national stage of the earlier international application. Indeed, the fact that the rule was amended in 1995 to delete any requirement of including the filing date when an applicant is relying on a prior nonprovisional application by itself fatally undermines any

policy argument that the public should be able to see the claimed priority date on the face of every patent.[19] At no relevant time did Rule 1.78 constitute, nor could it reasonably be interpreted to have constituted a means of full first sentence disclosure of the ultimate priority date claimed by a patent applicant.

In sum, the district court cited no valid basis for demanding some reference to the PCT application in the first sentence. The '094 patent complied with every law and regulation that governed its ability to claim priority to earlier filed applications. Neither Section 120 nor Rule 1.78 required that the '094 patent reference every application "in the entire chain of applications" (A-003943), as Charter would have this Court impose. At most, the applicant needed only to make those benefit claims necessary to ensure the patent's validity – and to show one path to its claimed priority date. The application did so by properly claiming the benefit of the U.S. parent and grandparent applications.

This conclusion is reinforced by the statutory presumption of patent validity, *see* 35 U.S.C. § 282, and the related rule that courts should defer to the interpretation that an agency gives to its own regulations. *See Bowles v. Seminole*

[19] Also worthy of consideration is the fact that the regulation was amended three months *after* the issuance of the '094 patent to eliminate the requirement that disclosures included in the application data sheet be repeated in the first sentence of the specification. This not only means that the '094 patent complied with the current regulations very shortly after its issuance but also is a further indication that the District Court had no basis for heightening the first-sentence disclosure rule as it existed in 1999 to serve the policy of public notice to the satisfaction of the court.

Rock & Sand Co., 325 U.S. 410, 414 (1945); *Hyatt v. Boone*, 146 F.3d 1348, 1355 (Fed. Cir. 1998). Here, as the district court noted (A-000011), the patent examiner reminded the applicant of its duty to comply with section 120 and Rule 1.78(a)(2). The applicant provided the sentence at issue here, which the examiner found to be perfectly acceptable. For the reasons already set forth, there is no justification for second-guessing that perfectly reasonable conclusion.

Thus, the '094 patent claims priority to November 26, 1993 as a matter of fact and law and, it follows, the international PCT application cannot be invalidating prior art. To rule otherwise would result in a manifest injustice, no less than a taking of Appellants' intellectual property rights. For the reasons stated here, the district court judgment of invalidity should be reversed and the case remanded for trial.

B. The District Court Erred in its Construction of Three Claim Terms: "Inserter", "Decoder", and "to a Television Set."

Claim construction is a question of law that this Court reviews *de novo*. *Cybor Corp. v. FAS Techs., Inc.*, 1383 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). There is a "heavy presumption" in favor of the ordinary meaning of claim language as understood by one of ordinary skill in the art. *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989, 50 U.S.P.Q.2D (BNA) 1607, 1610 (Fed. Cir. 1999). The intrinsic record is the primary source for determining claim meaning. *E.g., Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc.*, 262

F.3d 1258, 1268 (Fed. Cir. 2001); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Evidence extrinsic to the patent document "can shed useful light on the relevant art," but is less significant than the intrinsic record in determining the "legally operative meaning of disputed claim language." *Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n*, 366 F.3d 1311, 1318 (Fed. Cir. 2004). Extrinsic evidence cannot alter any claim meaning discernible from intrinsic evidence. *See Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003) ("When an analysis of intrinsic evidence resolves any ambiguity in a disputed claim term, it is improper to rely on extrinsic evidence to contradict the meaning so ascertained").

Technical and general-usage dictionaries are often useful in determining the ordinary meaning of claim terms. *See, e.g., Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (Fed. Cir. 2002), *cert. denied*, 538 U.S. 1058, 155 L. Ed. 2d 1108, 123 S. Ct. 2230 (2003). Consulting such resources often ensures that claim terms "will be more accurately determined" and improperly narrow constructions "will be more easily avoided." *Id.* at 1205.

In the claim construction orders issued in this case,[20] the district court limited certain terms to a single embodiment disclosed in the specification, notwithstanding the principle that limitations from the specification may not be

[20] Ex. D and Ex. E affixed hereto (also A-000027-0087 and A-000088-0116).

read into the claims. *See Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed. Cir. 1998). Specifically, the district court's constructions of "inserter" and "decoder" require the insertion and extraction of data in the vertical blanking interval of a television signal, improperly excluding digital embodiments. Further, the district court impermissibly limited the phrase "to a television set" to "directly to a television set." This construction neglects the plain and ordinary meaning of the word "to" and otherwise excludes an embodiment disclosed in the specification.

1. The construction of "inserter" and "decoder."

The terms "inserter" and "decoder" appear in different claims, yet involve complementary functions. An inserter is recited in claim 29 of the '094 patent, which reads as follows:

> 29. In a device for broadcasting a carrier signal such as a television or commercial radio carrier signal to a user, the improvement comprising:
>
> a computer having a transmission database;
>
> the database having individual first records, each first record comprising one of a selection of formats, at least one of the first records comprising executable program code or an object;
>
> an encoder for creating a packet based data stream constructed at least in part from the first records;

an **inserter** for inserting the data stream into another signal and a transmitter for broadcasting the data stream.

In general, claim 29 recites a device for broadcasting data using a carrier signal. The claimed inserter is used to insert a data stream into another signal which is then broadcast via the carrier signal.

A decoder is recited in claim 22, which generally relates to a device that receives a carrier signal and recovers the data records broadcast over that carrier signal. Claim 22 reads as follows:

> 22. In a communications device such as a personal computer or television or set top box adapted to receive a data stream broadcast over a carrier signal, such as a television or radio carrier signal, the improvement comprising:
>
> a receiver for receiving broadcast database records;
>
> a **decoder** and processor for extracting individual data records from the data stream to a user's database, the user's database comprising individual user records comprising at least some records recovered from the broadcast database records;
>
> the user records recovered from the broadcast database records comprising one of a selection of formats and at least one record comprising executable program code or an object broadcast from the first records;
>
> a control program for determining the format a user record;

> a processor for running, when required, the executable program code; and
>
> a display generator for creating a display consistent with the format determined by the control program.

The decoder performs a complementary function to the previously recited inserter. That is, the decoder extracts data from the data stream to recover the records broadcast from the transmission database.

a. The district court limited the terms to the preferred embodiment.

The district court acknowledged that "inserter" and "decoder" are terms of art in the industry, yet did not make a determination of the common and ordinary meaning of those terms. (A-000051 – 0053; A-000110 – 0114.) Instead, the district court limited each of the terms to operating on a signal having a vertical blanking interval and defined them as follows:

> Inserter: "a device for embedding data into the vertical blanking interval of a television video signal" (A-000053.)
>
> Decoder: "a device for extracting data embedded into the vertical blanking interval of a television video signal or commercial radio sideband" (A-000053.)

Both sides to the *Markman* proceedings proffered "common and ordinary meanings" for "inserter" and "decoder" through their respective technical experts. Plaintiffs-Appellants established the following:

Inserter: an inserter for placing information into or on a signal. (A-000813 – 0814.)

Decoder: a device that reverses the process of encoding or translating coded information. (A-000812 – 0814.)

The Defendants' expert used limiting definitions similar to the ones ultimately chosen by the district court. (A-000465.)

After considering the suggested definitions, the district court concluded that "the terms as understood by persons of skill in the art are ambiguous." (A-000111.) The district court then turned to the specification and discerned that the inventors of the '094 patent "act[ed] as their own lexicographers." (A-000113.)

The error is that the district court took statements from the specification regarding a preferred embodiment, which limited the terms to use with a vertical blanking interval, and characterized those statements as inventor-crafted definitions. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (fact that specification described claim term to be construed in context of "certain features and capabilities" does not mean that inventor had gone so far as "establishing a specialized definition restricting the claimed invention to ... having a specific set of characteristics and capabilities"); *see also Elekta Instrument S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1307(Fed. Cir. 2000) (patentee may be his own lexicographer, but written description must clearly redefine a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so

redefine that claim term; absent express intent to impart a novel meaning, the ordinary meaning obtains).

Indeed, each passage cited by the district court as limiting the scope of the terms "inserter" and "decoder" come from the "Description of Preferred Embodiments" section of the specification. (A-000219.) This was done despite the fact that the specification repeatedly sets out that the insertion of data in the vertical blanking interval is only one option for the encoding of data. For instance, the specification states that:

> *[In] [t]he primary example* **given in this specification the data stream 213 is embedded in the vertical blanking interval portion 214 of the television broadcast signal 215.** ('094 Patent, Col. 15, lines 35-38) (emphasis added).

and

> **Utilisation [sic] of the vertical blanking interval portion 214 of a TV broadcast signal 215 is** *but one example* **of a datacasting method.** ('094 Patent, Col. 15, lines 43-45) (emphasis added).

Regarding the "decoder", the specification states:

> **Thus the database receiver is designed to have the ability to draw information from a number of carrier VBIs** *or from a full field data broadcast,"* **and "adapted to receive secondary data** *from a signal other than a TV signal.* ('094 Patent, Col. 11, lines 35-37 and Col. 14, lines 8-9) (emphasis added).

Clearly, the inventors contemplated and disclosed other methods of inserting data into and extracting data from a data stream. As recited above, the '094 patent specifically teaches an embodiment in which the digital data is inserted into and

extracted out of a full-field data broadcast, i.e., data is inserted into all of the lines of the television signal rather than just the vertical blanking interval portion of the signal. ('094 Patent, Col. 11, lines 35-37).

b. The district court's constructions exclude the disclosed digital embodiments.

The district court's constructions also impermissibly exclude digital embodiments disclosed in the patent. The '094 patent explains that the digital information may be inserted into digital packets, such as MPEG or MPEG2 packets, as an alternative to inserting data into the vertical blanking interval. The patent specification states:

> In the context of TV multimedia which receives forward directional information from a high bandwidth broadcast (point to multipoint) channel carrying RDS, TV packet 31 **or their digital domain equivalents (MPEG, MPEG2 and Orthogonal frequency division multiplex broadcast data packets)**, for interactivity a point to point return link is needed. ('094 Patent, Col. 11, lines 41-49) (emphasis added).

It is undisputed that digital television signals do not contain a vertical blanking interval as do analog television signals. Thus, the district court's limitation of "inserter" and "decoder" to analog devices is improper given the '094 patent's disclosure of digital television signals and digital insertion methods. By excluding embodiments disclosed in the '094 patent, the district court settled upon definitions that are inconsistent with the terms' ordinary meanings.

c. The district court's construction leads to an inoperable system.

Additionally, the district court's constructions of "inserter" and "decoder" make these complementary mechanisms incompatible with one another while ignoring the explicit language of the claims in which the terms appear. Claims 22 and 29 involve, *inter alia*, the use of an inserter and a decoder in conjunction with a "television or commercial radio carrier signal." ('094 Patent, Col. 23, lines 19-20 and Col. 24, lines 14-15).

First, a commercial radio signal has no vertical blanking interval (VBI). The VBI refers to an unused portion of a video signal. (A-000454 and A-000456.) To limit "inserter" to inserting data in the VBI would render claim 29 inapplicable to a radio signal when the claim explicitly recites a "commercial radio carrier signal."

Second, because the VBI has no application to commercial radio signals, the district court's construction of the term "decoder" as "a device for extracting data embedded into the vertical blanking interval of a television video signal or a commercial radio sideband," is a physical impossibility. The district court based its construction on the embodiments in which an inserter acts on the video signal before the combined video signal with embedded data is used to modulate the carrier signal. Even in those embodiments, the carrier signal itself does not include a vertical blanking interval. However, the construction rendered by the district court explicitly recites a commercial radio sideband (carrier signal) having a

vertical blanking interval. It is undisputed that a commercial radio sideband does not have a VBI.

Finally, because the specification clearly states that the inserter and decoder are designed to work in concert ('094 Patent, Col. 4, lines 50-52), the district court's disparate treatment of these two terms is contrary to general electrical engineering principles as well as the patent itself. The only manner in which the terms "inserter" and "decoder" can be read to apply to a commercial radio signal is to simply impart their plain and ordinary meaning as proffered by Broadcast, *supra*.

2. The construction of "to a television set."

The district court applied similarly improper analysis to the phrase "to a television set" by deviating from the ordinary meaning and excluding an embodiment disclosed in the patent. The subject phrase is recited in the preamble of claim 8 which reads as follows:

> 8. In a method for broadcasting data **to a television set** using a carrier signal such as a television or commercial radio carrier signal, the improvement comprising:
>
> constructing a data stream from the records of a transmission database; and
>
> the database having individual first records, each first record comprising one of a selection of formats, at least one of the first records comprising executable program code or an object;

broadcasting the data stream within the carrier signal.

Claim 8 generally recites a method for broadcasting data to a television set using a carrier signal. The American Heritage Dictionary defines the word "to" as "towards" or "in a direction toward so as to reach." THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, 4th Ed. 2000. Thus, the district court's definition of "directly to a television set and not to any component residing out side of a television set" (A-000102 – 0105) sits in stark contrast with the ordinary meaning of the word "to" as described in the dictionary.

The specification of the '094 patent, in fact, describes one embodiment of the invention in which receiving and decoding elements are incorporated into a television such that a data broadcast using a carrier signal may be received directly by the television set. (Col. 11, line 54 – Col. 12, line 15 and Figure 4). However, the specification describes also an embodiment in which receiving and decoding elements are incorporated into a set-top box or receiver connected to the TV, such that data broadcast to a television set using a carrier signal is processed by the set-top box. (Col. 4, lines 13-52 and Figure 1).

The district court's definition is not only inconsistent with the specification but it limits this claim to only one of the preferred embodiments. There is no requirement of "directly" in the claim because Column 4 explains that the data is broadcast from the central station over the air waves to the receiver station and that

the display screens, such as television receiver sets or video monitors, are connected to the receiver stations. (Col. 4, lines 18-26 and Figure 1).

The district court held that the patentee used broader language in another claim that would read on both of the embodiments above, but that the patentee limited claim 8 to only one of the embodiments by its use of the phrase "to a television set." (A-000102 – 0105.) In particular, the district court pointed out that claim 22 recites the receipt of broadcast data by "a communications device such as a personal computer or television or set top box adapted to receive a data stream," while claim 8 only recites broadcasting data to a television set. This resulted in the district court's limited definition which requires that data be broadcast directly to a television set and not to any component outside of the television set.

The district court's claim differentiation position is flawed in at least two respects. First, the carrier signal described in both of the embodiments mentioned above is not received directly by the television set, but rather by an antenna that is a component connected to the television set. (Figure 1 and Col. 5, lines 31-39; Figure 4 and Col. 11, lines 54-60). Thus, the district court's definition would, in effect, exclude both embodiments.

Second, claim 22 and the subject claim 8 are fundamentally different types of claims, making their comparison incongruous. Claim 8 is a method claim. "Method claims are defined in terms of operations performed." Wesley L. Austin,

Software Patents, 7 Tex. Intell. Prop. L.J. 225, 269 (1999). Indeed, "[b]ecause method claims ***are intended to define the steps performed and not the hardware, they need not be tied as closely to the disclosed structure as the apparatus claims*** should be." *Id.* (emphasis added)[21]

Claim 22 is an apparatus claim covering a "communications device." The claim identifies specific apparatuses, namely a computer, television, and set top box, each capable of serving as a communications device. Unlike the method claim 8 which focuses on the data transmission process (the ultimate destination for such data being the television set), claim 22 necessarily identifies the mechanisms capable of receiving and acting upon such data transmission. As a method claim, claim 8 needs "not be tied as closely to the disclosed structure" and, as such, should not be narrowed by virtue of an apparatus claim that, by its nature, must contain more structural detail.[22]

[21] Citing Stephen A. Becker, PATENT APPLICATIONS HANDBOOK 2.03[1] at 2-34 (1995) (stating that "method claims need not be tied as closely as apparatus claims to disclosed structure, since method claim elements are intended to define operational steps, not hardware").

[22] The U.S. Supreme Court has long recognized the unmistakable distinction in the nature of apparatus and method claims. *See Corning v. Burden*, 56 U.S. 252, 267 (1853) (defining the apparatus claim as "a mechanical device or combination of mechanical powers and devices"); *Cochrane v. Deener*, 94 U.S. 780, 788 (1876) (characterizing the method or process claim as "a mode or treatment of certain material [here, the interactive television data] to produce a given result [here, ultimate delivery of the data to the television set]").

Appellants request, accordingly, that the Court define "to a television set" in accordance with its ordinary meaning and that the "directly" limitation be removed.

VI. CONCLUSION

The district court misconstrued statutory and regulatory authority and improperly invalidated the '094 patent. Further, the district court misconstrued the patent claims in certain respects, necessitating this Court's review.

Upon consideration of the arguments presented herein, Appellants ask that this Court reverse the district court's grant of summary judgment of invalidity (and the attendant final judgment) and remand this case for trial. Appellants ask also that this Court correct the district court's claim construction to be consistent with the intrinsic record and applicable law.

Respectfully submitted,

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ATTORNEYS FOR PLAINTIFFS-APPELLANTS BROADCAST INNOVATION, L.L.C. and IO RESEARCH PTY LTD.

Dated: December 17, 2004

CERTIFICATE OF SERVICE

The undersigned hereby certifies that two true and correct copies of the above and foregoing BRIEF OF PLAINTIFFS-APPELLANTS have been served, via Federal Express, on this 7th day of December, 2004 to:

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS

1. This brief complies with the type-volume limitations of Federal Rule of Appellate Procedure 32(a)(7)(B).

The brief contains 10,557 words (including footnotes), excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii).

2. This brief complies with the typeface requirement of Federal Rule of Appellate Procedure 32(a)(6) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6).

The brief has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman in 14-point font.



Edward R. Nelson, III

INDEX OF ADDENDUM MATERIALS

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A	September 17, 2004 Judgment
B	August 3, 2004 Order Granting Defendant's Motion for Summary Judgment of the Invalidity of U.S. Patent 6,076,094
C	September 13, 2004 Order Denying Plaintiffs' Motion for Reconsideration
D	January 6, 2003 Order on Issues of Claim Construction (entered in Civil Action No. 01-WY-2201-AJ (BNB), styled *Broadcast Innovation LLC v. EchoStar Communications Corporation*, and incorporated into this litigation by the March 22, 2004 Stipulated Order Regarding Claim Construction Procedure)
E	August 29, 2003 Order on Appeal of Magistrate's Claim Construction of the '094 Patent (entered in Civil Action No. 01-WY-2201-AJ (BNB), styled *Broadcast Innovation LLC v. EchoStar Communications Corporation*, and incorporated into this litigation by the March 22, 2004 Stipulated Order Regarding Claim Construction Procedure)

Tab A

tab B

FILED
UNITED STATES DISTRICT COURT
DENVER, COLORADO
SEP 20 2004
GREGORY C. LANGHAM
CLERK

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

BROADCAST INNOVATION, L.L.C. and IO RESEARCH PTY LTD.,

Plaintiff(s),

vs.

CHARTER COMMUNICATIONS, INC.,

Defendant(s).

Case No. 03-WY-2223-AJ (BNB)

Judgment

The Court having entered its "Order Granting Defendant's Motion for Summary Judgment of the Invalidity of U.S. Patent 6,076,094" for the reasons that there are no genuine issues of material fact and defendant is entitled to judgment in its favor as a matter of law, it is therefore

ORDERED, ADJUDGED AND DECREED that plaintiffs Broadcast Innovation, L.L.C. and IO Research PTY LTD., recover nothing of defendant Charter Communications INC., and that defendant recover of the plaintiff his costs of action, with all of the parties to bear their own attorneys' fees.

Dated this 17th day of September 2004.

ALAN B. JOHNSON
UNITED STATES DISTRICT JUDGE
SITTING BY DESIGNATION

Tab C

FILED
UNITED STATES DISTRICT COURT
DENVER, COLORADO

AUG 04 2004

GREGORY C. LANGHAM
CLERK

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF COLORADO

BROADCAST INNOVATION L.L.C. and IO RESEARCH PTY LTD., Plaintiffs, vs. CHARTER COMMUNICATIONS INC., Defendant.	Case No. 03-WY-2223-AJ (BNB)

ORDER GRANTING DEFENDANT'S MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF U.S. PATENT 6,076,094

This is a case of patent infringement in which plaintiffs Broadcast Innovation L.L.C. (hereinafter "Broadcast") and IO Research Pty Ltd. (hereinafter "IO Research") allege that Charter Communications Inc. (hereinafter "Charter") infringed directly or indirectly claims 8, 15, 22, 29 of United States Patent No. 6,076,094 (hereinafter "'094 Patent"). The above-entitled matter comes before the Court on Motion and Memorandum in Support of the Motion of Defendant Charter Communications Inc. for Summary Judgment of Invalidity of U.S. Patent 6,076,094. The Court, having reviewed the motion, the materials filed in support thereof and in opposition thereto, and being fully advised in the premises, FINDS and ORDERS as follows:

FACTUAL AND PROCEDURAL BACKGROUND

On November 9, 2001, in a case related to the present action entitled *Broadcast Innovation L.L.C. v. Echostar Communication Corp.*, Civil Action No. 01-[WY]-2201-AJ (BNB) (hereinafter "*Echostar* case"), Broadcast filed suit against Echostar Communications Corporation (hereinafter "Echostar") alleging the infringement of two separate U.S. Patents—the '094 Patent and United States Patent No. 4,993,066 (hereinafter "'066 Patent"). Briefly, the '094 Patent claims an invention relating to broadcasting data to a television set using a carrier signal, and the '066 Patent claims a method for television scrambling.

On January 6, 2003, Magistrate Judge Boyd N. Boland issued an Order on Issues of Claim Construction in the *Echostar* case interpreting claims 8, 15, 22, and 29 of the '094 Patent, and claims 9, 10, and 11 of the '066 Patent. Thereafter, this Court denied Echostar's appeal in upholding the Magistrate Judge's construction of the '094 Patent, and, additionally, this Court granted Echostar's appeal and concurrently granted a judgment of invalidity as to the '066 Patent. As a result, the '094 Patent remains the point of interest.

On November 7, 2003, Broadcast filed its Original Complaint in the above-entitled matter demanding, *inter alia*, judgment that one or more claims of the '094 Patent have been infringed, either literally and/or under the doctrine of equivalents, by Comcast Corporation (hereinafter "Comcast") and Charter and/or by others to whose infringement Comcast and Charter have contributed and/or by others whose infringement has been induced by Comcast and Charter.

On March 25, 2004, the Court entered a Stipulated Order Regarding Claim

Construction Procedure mandating as follows:

> The Magistrate Judge's January 6, 2003 *Order on Issues of Claim Construction*, relative to the '094 Patent, and the Court's *Order* dated August 29, 2003 in the case entitled *Broadcast Innovation L.L.C. v. Echostar Communication Corp.*, Civil Action No. 01-[WY]-2201-AJ (BNB) (the "Collateral Litigation") (orders collectively the "Collateral Litigation Claim Construction Orders") will apply in this case.
>
> There will be no additional claim construction hearing in this case, and the parties will not reargue the claim construction issues raised in the Collateral Litigation Claim Construction Orders. However, the defendants adopt and preserve all claim construction arguments and objections to the Collateral Litigation Claim Construction Orders made by defendants in the Collateral Litigation, and the plaintiff adopts and preserves all claim construction arguments and objections to the Collateral Litigation Claim Construction Orders made by the plaintiff in the Collateral Litigation, and the arguments and objections of each side will be preserved for appeal in this case.
>
> Charter Communications Inc. may file supplemental arguments and objections, if any, directed to the Collateral Litigation Claim Construction Orders on or before May 1, 2004 (to be filed in a document separate from any motions for summary judgment), and Comcast Corporation may join in those supplemental objections. Broadcast Innovation L.L.C. will have ten days from the filing of any supplemental arguments and objections to file a response. Any such supplemental arguments and objections, and any arguments made in response, will be preserved for appeal in this case and shall not require a hearing or a further order from this Court.
>
> This order will not bar any party from raising an argument on summary judgment that may require claim terms to be construed, so long as the argument does not contradict the Collateral Litigation Claim Construction Orders.

On April 2, 2004, the Court granted Broadcast's Unopposed Motion for Leave to Join Party Plaintiff IO Research. Concurrently on April 2, 2004, Broadcast filed its First

Amended Original Complaint joining IO Research in its request for judgment.[1]

On April 12 and 13, 2004, Comcast and Charter, respectively, filed Answers to Broadcast and IO Research's First Amended Complaint including, therewith, individual counterclaims for declaratory judgment of both invalidity and non-infringement of the '094 Patent.

On May 5, 2004, Charter filed its Motion and Memorandum In Support of the Motion of Defendant Charter Communications Inc. for Summary Judgment of Invalidity of U.S. Patent 6,076,094. Therein, Charter first contends that the '094 Patent is invalid as a matter of law because its earliest priority date—July 18, 1995—falls more than one year after the publication of prior patents regarding the same technology. Secondly, Charter included the following provision at the conclusion of its Motion:

> V. THE '094 PATENT IS INVALID FOR THE ADDITIONAL REASONS STATED IN SEPARATE

[1]The First Amended Original Complain provides in relevant part:

> 7. On June 13, 2000, U.S. Patent No. 6,076094 ("the '094 patent") was duly and legally issued for a "Distributed Database System and Database Received Therefor." A copy of the '094 patent is attached as *Exhibit A* and is made a part hereof. IO RESEARCH is the owner and assignor of the '094 patent, and by exclusive license, BROADCAST has the right to enforce the '094 patent in the United States and collect damages for all relevant times. This First Amended Original Complaint joins IO RESEARCH as a voluntary party Plaintiff because, by virtue of the exclusive license agreement with BROADCAST, IO RESEARCH maintains a financial interest in any recovery in this litigation, and because the outcome here may have implications for IO RESEARCH's efforts to enforce the '094 patent's foreign counterparts.

MOTIONS IN WHICH CHARTER JOINS, FILED BY OTHER PARTIES

Charter hereby joins in and adopts COMCAST CORPORATION'S MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF UNITED STATES PATENT NO. 6,076,094 (dated May 3, 2004); DIRECTV'S, HUGHES', AND THOMSON'S MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF THE ASSERTED CLAIMS OF UNITED STATES PATENT NO. 6,076,094 (date April 4, 2003, in Civil Action No. 01-WY-2201-AJ (BNB)); DEFENDANT ECHOSTAR COMMUNICATION CORPORATION'S MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF UNITED STATES PATENT NO. 6,076,094 (dated April 4, 2003, in Civil Action No. 01-WY-2201-AJ (BNB)); DIRECTV AND HUGHES' REPLY IN SUPPORT OF THEIR MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF THE ASSERTED CLAIMS OF UNITED STATES PATENT NO. 6,076,094 ([d]ated June 4, 2003, in Civil Action no. 01-WY-2201-AJ (BNB)); THOMSON'S REPLY TO PLAINTIFF BROADCAST INNOVATION, L.L.C.'S OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF THE ASSERTED CLAIMS OF UNITED STATES PATENT NO. 6,076,094 (dated June 4, 2003, in Civil Action No. 01-WY-2201-AJ (BNB)); and DEFENDANT ECHOSTAR COMMUNICATIONS CORPORATION'S REPLY BRIEF IN SUPPORT OF ITS MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF UNITED STATES PATENT NO. 6,076,094 (dated June 4, 2003, in Civil Action No. 01-WY-2201-AJ (BNB)).

Accordingly, and in addition to its own Motion in the present action, Charter has joined in and adopted a host of pleadings filed both in the present action and in the *Echostar* case.

On May 24, 2004, Broadcast and IO Research filed Plaintiffs' Opposition to the Defendants' Motions for Summary Judgment of Invalidity of U.S. Patent Number 6,076,094. Therein, Broadcast and IO Research contend that the '094 Patent properly claims priority to the international PCT application, and that there is no evidence in the record to

support a finding of invalidity as to the '094 Patent by combining any of the prior art references.

STANDARD OF REVIEW

Summary judgment is proper when there is no genuine issue of material fact to be resolved at trial. Fed. R. Civ. P. 56(c); *Nebraska v. Wyoming*, 507 U.S. 584, 590 (1993). Thus, a district court may grant summary judgment "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue of material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c); *Nelson v. Geringer*, 295 F.3d 1082, 1086 (10th Cir. 2002). "An issue of material fact is genuine where a reasonable jury could return a verdict for the party opposing summary judgment." *Seymore v. Shawver & Sons, Inc.*, 111 F.3d 794, 797 (10th Cir. 1997).

In applying these standards, this Court will view the evidence in the light most favorable to the party opposing summary judgment. *Jenkins v. Wood*, 81 F.3d 988, 990 (10th Cir. 1996). The movant bears the initial burden of demonstrating the absence of evidence to support the non-moving party's claims. *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986). When the non-moving party bears the burden of proof at trial, the burden then shifts to it to demonstrate the existence of an essential element of its case. *Id.* To carry this burden, the non-moving party must go beyond the pleadings and designate specific facts to show there is a genuine issue for trial. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 251

(1986); *Ford v. West*, 222 F.3d 767, 774 (10th Cir. 2000). The mere existence of a scintilla of evidence in support of the non-moving party's position is insufficient to create a "genuine" issue of disputed fact. *Lawmaster v. Ward*, 125 F.3d 1341, 1347 (10th Cir. 1997).

The party asserting invalidity must overcome the presumption of patent validity with facts supporting such a conclusion by clear and convincing evidence. 35 U.S.C. § 285; *Dana Corp. v. American Axle & Manufacturing Inc.* 279 F.3d 1372, 1375 (Fed. Cir. 2002).

ANALYSIS

I. Summary Judgment

During the fall of 1992 and the winter of 1993, IO Research filed with the Australian Patent Office a series of patent applications. On November 20, 1993, those patent applications were consolidated into a single omnibus patent application (hereinafter "1993 PCT Application").[2] Pursuant to the Patent Cooperation Treaty of 1970, 35 U.S.C. §§ 351-76, the 1993 PCT Application was filed singly and separately, designating the United States of America as a country within which a patent would be sought. Charter represents to the Court, and neither Broadcast nor IO Research dispute, that the 1993 PCT Application was published on June 9, 1994.

On July 18, 1995, IO Research filed U.S. Patent Application No. 08/436,336 (hereinafter "1995 Application"). On April 7, 1998, the 1995 Application matured into U.S. Patent No. 5,737,595 (hereinafter "'595 Patent"). The '595 Patent is not at issue in this

[2] According to Charter, it is undisputed that the 1993 PCT Application described the same inventions that are claimed in the '094 Patent.

litigation, though reference thereto is helpful for the purpose of factual context.

On April 3, 1998, four days before the issuance of the '595 Patent, IO Research filed a continuation application[3] relating to the '595 Patent assigned U.S. Application No. 09/054,896 (hereinafter "Continuation Application"). On December 7, 1999, the Continuation Application matured into U.S. Patent No. 5,999,934 (hereinafter "'934 Patent"). Similarly, the '934 Patent is not at issue in this litigation but rather remains helpful for the purpose of factual context.

During the prosecution of the Continuation Application, IO Research claimed the benefit of the priority date of the 1993 PCT Application by amending the first sentence of the specification, in compliance with 37 C.F.R. § 1.78(a)(2)(i), to read, "This Application is a continuation . . . of Application Serial No. 08/436,336 filed on July 18, 1995, Patent Number: 5,737,595, which is a [35 U.S.C. § 371] of PCT/AU93/00607, filed November 26, 1993." As a result of this amendment, the first sentence of the '934 Patent's specification reads:

> This application is a continuation of application Ser. No. 08/436,336 filed on July 18, 1995, U.S. Pat. No. 5,737,595, which is a [35 U.S.C. § 371] of PCT/AU93/00607 filed November 26, 1993.

[3] "A continuation application is one that is filed during the pendency of an application previously filed by the same inventor, called the original or 'parent' application, and which discloses and claims only subject matter disclosed and claimed in the original or parent application." *Reynolds Metals co. v. Continental Group Inc.*, 525 F. Supp. 950, 970 (N.D. Ill. 1981).

On May 20, 1999, IO Research filed a divisional application[4] assigned U.S. Application No. 09/316,164 (hereinafter "'094 Patent Application"). Within the oath portion of the '094 Patent Application,[5] IO Research claimed foreign priority benefits under 35 U.S.C. § 119 of a host of Australian patent applications including, and limited to, Australian Patent Application No. PL 6080 filed Nov. 27, 1992, Australian Patent Application No. PM 0549, filed Aug. 13, 1993, Australian Patent Application No. PM 0742, filed Aug. 20, 1993, Australian Patent Application No. PM 1570, filed Sep. 30, 1993, Australian Patent Application No. PM 1571, filed Sep. 30, 1993, and Australian Patent Application No. PM 1621 filed Oct. 1, 1993. Within that oath, IO Research did not claim any priority benefits under 35 U.S.C. § 120.

Alongside the '094 Patent Application, and similar to the oath of that application, IO Research's May 21, 1999 transmittal letter to the Patent and Trademark Office with regard to the '094 Patent Application provided:

[4]"A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in the earlier or parent application, is known as a divisional application or 'division.'" MANUAL OF PATENT EXAMINING PROCEDURE § 201.06 (5TH ed. 1983). "A divisional patent application is used when the disclosure of the parent application supports an invention not covered by the original patent claims. A divisional application is also used when two distinct inventions are initially claimed in an application and the Patent Office requires restriction between them, and the applicant elects which invention to prosecute in that application and the other invention becomes the subject of the divisional application." Ernest Bainbridge Lipscomb III, WALKER ON PATENTS § 9:16 (3d ed. 1985).

[5]Federal law provides that a patent application shall include "an oath by the applicant as prescribed by section 115 of this title." 35 U.S.C. § 111(a)(2)(C).

As required under 35 U.S.C. [§] 120, the Specification of the attached application includes the following specific reference to the earlier filed parent application:

> "This Application is a divisional of co-pending U.S. Patent Application Serial No. 09/054,896 filed April 3, 1998, which is a continuation of U.S. Patent Application Serial No. 08/436,336 filed June 18, 1995, which issued on April 7, 1998 as U.S. Patent No. 5,737,595, which claims priority from PCT Application no. PCT/AU93/00604 filed Nov. 26, 1993, which claims priority from Australian Patent Application No. PL 6080 filed Nov. 27, 1992, and from Australian Patent Application No. PM 0549, filed Aug. 13, 1993, and from Australian Patent Application No. PM 0742, filed Aug. 20, 1993, and from Australian Patent Application No. PM 1570, filed Sep. 30, 1993, and from Australian Patent Application No. PM 1571, filed Sep. 30, 1993, and from Australian Patent Application No. PM 1621 filed Oct. 1, 1993.

Upon the issuance of the parent application, Applicants will amend the specification to include the U.S. Patent No. of the parent.

In a subsequent Office Action Summary, the Patent Examiner reminded applicant IO Research that "[a]n application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification (37 C.F.R. [§] 1.78)." In response to this Office Action Summary, IO Research filed on January 31, 2000 a Reply to Office Action Mailed September 20, 1999 seeking to amend the specification of the '094 Patent Application as follows:

> After the title and before "Technical Field" please insert: This application is a divisional of U.S. Patent Application Serial No. 09/054,896, filed April 3, 1998, now patented as U.S. Patent No. 5,999,934, which is a continuation of U.S. Patent Application Serial No. 08/436,336, filed July 18, 1995, now patented as U.S. Patent No. 5,737,595.

Neither this amendment, nor any subsequent amendment, to the '094 Patent Application added any reference of the 1993 PCT Application to the specification language. As a result, the earliest priority date referenced in the first sentence of the '094 Patent specification is the July 18, 1995 date of the 1995 Application, which is more than one year after the June 9, 1994 publication date of the 1993 PCT Application.

Federal law provides that "[a] person shall be entitled to a patent unless . . . the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States" 35 U.S.C. § 102(b). It is not disputed that the June 9, 1994 publication of the 1993 PCT Application satisfies the relevant portion of the foregoing statute. It is disputed, however, whether the '094 Patent Application properly claimed priority to the 1993 PCT Application. With respect to the priority dates of patent applications in relation to earlier filed foreign patent applications, federal law continues:

> An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application. *No application shall be entitled to the benefit of an earlier filed application under this section unless an amendment containing the specific reference to the earlier filed application is*

submitted at such time during the pendency of the application as required by the Director. Th Director may consider the failure to submit such an amendment within that time period as a waiver of any benefits under this section. The Director may establish procedures, including the payment of a surcharge, to accept an unintentionally delayed submission of an amendment under this section.

35 U.S.C. § 120 (emphasis added).[6] Within the context of this statute and under the authority delegated pursuant to 35 U.S.C. § 2(b)(2),[7] the Patent and Trademark Office

[6]35 U.S.C. § 363 provides, "An international application designating the United States shall have the effect, from its international filing date under article 11 of the treaty, of a national application for patent regularly filed in the Patent and Trademark Office except as otherwise provided in section 102(e) of this title."

[7]35 U.S.C. § 2(b)(2) provides:

(b) Specific powers. The [Patent and Trademark] Office---

* * *

(2) may establish regulations, not inconsistent with law, which—

(A) shall govern the conduct of proceedings in the Office;

(B) shall be made in accordance with section 553 of title 5, United States Code;

(C) shall facilitate and expedite the processing of patent applications, particularly those which can be filed, stored, processed, searched, and retrieved electronically, subject to the provisions of section 122 relating to the confidential status of applications;

(D) may govern the recognition and conduct of agents, attorneys, or other persons representing applicants or other parties before the Office, and may require them,

promulgated the following regulation in force at the May 20, 1999 date of the '094 Patent Application.:

> Except for a continued prosecution application filed under §1.53(d), any nonprovisional application claiming the benefit of one or more prior filed copending nonprovisional applications or international applications designating the United States of America *must contain or be amended to contain in the first sentence of the specification* following the title a reference to each such prior application, identifying it by application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. The request for a continued prosecution application under §1.53(d) is the specific reference required by 35 U.S.C. [§] 120 to the prior application. The identification of an application by application number under this section is the specific reference required by 35 U.S.C. [§] 120 to every

> before being recognized as representatives of applicant or other persons, to show that they are of good moral character and reputation and are possessed of the necessary qualifications to render to applicants or other persons valuable service, advice, and assistance in the presentation or prosecution of their applications or other business before the office;
>
> (E) shall recognize the public interest in continuing to safeguard broad access to the United States patent system through the reduced fee structure for small entities under section 41(h)(1) of this title; and
>
> (F) provide for the development of a performance-based process that includes quantitative and qualitative measures and standards for evaluating cost-effectiveness and is consistent with the principles of impartiality and competitiveness;
>
> * * *

35 U.S.C. § 2(b)(2)(A)-(F).

application assigned that application number. Cross-references to other related applications may be made when appropriate (see §1.14(a)).

37 C.F.R. § 1.78(a)(2)(i) (1997) (emphasis added) (hereinafter "1997 Regulation").[8]

Charter contends that the '094 Patent is invalid under 35 U.S.C. § 102(b) because the patent benefits, at the earliest, from the July 18, 1995 date of the 1995 Application, and because that July 18, 1995 priority date is more than one year after the June 9, 1994 foreign publication date of the 1993 PCT Application. Specifically, Charter continues that IO Research, in applying for the '094 Patent, neglected to make specific reference within the first sentence of the patent specification to the 1993 PCT Application, and, instead, made specific reference within the first sentence of the specification to, at the earliest, the July 18, 1995 date of the 1995 Application.

[8]This is the relevant language of 37 C.F.R. § 1.78(a)(2)(I) as of May 20, 1999, the filing date of the '094 Patent Application. The language of that same regulation has since been amended numerous times with its most current version omitting the "first sentence of the specification" requirement and appearing as such:

> Except for a continued prosecution application filed under § 1.53(d), any nonprovisional application or international application designating the United States of America claiming the benefit of one or more prior-filed copending nonprovisional applications or international applications designating the United States of America must contain or be amended to contain a reference to each such prior-filed application, identifying it by applications number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. Cross references to other related applications may be made when appropriate (see § 1.14).

37 C.F.R. § 1.78(a)(2)(I) (2003) (hereinafter "2003 Regulation").

Broadcast and IO Research first counter that federal statutory language trumps any inconsistent federal regulatory language, and the fact that the '094 Patent Application complies with the language of 35 U.S.C. § 120, by way of 35 U.S.C. § 111, with regard to the imposition of the November 20, 1993 priority date secures patent validity. Secondly, Broadcast and IO Research counter that assuming the federal regulations govern the priority date procedure, IO Research did, in fact, comply with the terms of the regulations insofar as the '094 Patent Application contained specific references to the 1993 PCT Application in the declaration/oath, the transmittal letter, and the Patent and Trademark Office's own data sheet.

A. Validity of the 1997 Regulation

It is axiomatic that a federal agency, such as the Patent and Trademark Office, cannot promulgate regulations lest those regulations are consistent with statutory provisions enacted by Congress. *See Nagahi v. Immigration & Naturalization Service*, 219 F.3d 1166, 1169 (10th Cir. 2000) (an agency cannot create regulations which are beyond the scope of its delegated authority); *Spears v. Merit Systems Protection Board*, 766 F.2d 520, 523 (Fed. Cir. 1985).

> When faced with a challenged to the validity of a regulation, we apply the analytical framework provided by the United States Supreme Court in *Chevron*. As an initial matter, we decide "whether Congress has directly spoken to the precise question at issue." [*Chevron U.S.A. Inc. v. Natural Resources Defense Council Inc.*, 467 U.S. 837, 842 (1984)]. If the statute is clear and unambiguous "that is the end of the matter, for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *K-Mart Corp. v.*

> *Cartier Inc.*, 486 U.S.281, 291 (1988) (quoting *Board of Governors of the Federal Reserve System v. Dimension Financial Corp.*, 474 U.S. 361, 368 (1986) (quoting *Chevron*, 467 U.S. at 842-43)). If, however, the statute does not speak directly to the question at issue or is ambiguous, the court, giving considerable weight to the agency's interpretation, must decide if the agency's answer is "a permissible construction of the statute." *Chevron*, 467 U.S. at 843.

Sundance Associates Inc. v. Reno, 139 F.3d 804, 807-08 (10th Cir. 1998). The view of the agency charged with administering the statute is entitled considerable deference; to sustain it, we need not find that it is the only permissible construction but only that the agency's is a sufficiently rational one to preclude a court from substituting its judgment for that of the agency. *Chemical Manufacturer's Association v. Natural Resources Defense Council Inc.*, 470 U.S. 116, 125 (1985). In short, "The agency's regulations must be upheld unless they are arbitrary, capricious, or manifestly contrary to the statute." *Home Mortgage Bank v. Ryan*, 986 F.2d 372, 376 (10th Cir. 1993).

As mentioned, Congress, pursuant to the language of 35 U.S.C. § 2(b)(2), has delegated to the Patent and Trademark Office the power to promulgate certain rules and regulations. "By this grant of power, we understand Congress to have 'delegated plenary authority over [Patent and Trademark Office] practice' . . . to the Office." *Stevens v. Tamai*, 366 F.3d 1325, 1333 (Fed. Cir. 2004).

As noted above, the 1997 Regulation, the federal regulation in place at the time of the '094 Patent Application and thusly the governing provision, mandated, "[A]ny provisional application *claiming the benefit* of one or more *prior filed* . . . international

applications designating the United States of America must contain or be amended to contain in the first sentence of the specification following the title a reference to each such prior application, identifying it by application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications." 37 C.F.R. § 1.78(a)(2)(i) (1997). Such regulatory language is, in effect, more narrow than that of the relevant statutory provision, 35 U.S.C. § 120, in that it requires not only specific reference to the earlier filed application, but it also requires said reference fall within the "first sentence of the specification." It is this Court's opinion that such narrow language is not inconsistent with the relevant statutory provision enacted by Congress, that such narrow language is not beyond the scope of the authority delegated to the Patent and Trademark Office, and that such narrow language is not arbitrary, capricious, or manifestly contrary to the terms of the federal statute. First, the additional requirement that the patent applicant include all priority dates within a particular section of the patent application seems no more unjust than requiring the payment of a specific application fee.[9] Just as the Patent and Trademark Office is best suited to determine an appropriate filing fee, a fee which no doubt changes over time, it is similarly well-suited

[9]Federal law provides, "The application must be accompanied by the fee required by law. The fee and oath may be submitted after the specification and any required drawing are submitted, within such period and under such conditions, including the payment of a surcharge, as may be prescribed by the Director." 35 U.S.C. § 111(a)(3). In turn, a pertinent regulation provides, for example, that small entities pay $375.00 in basic filing fees and other than small entities pay $750.00 in basic filing fees for an original patent application. *See* 37 C.F.R. § 1.16.

to determine the most appropriate means of specifying a patent's priority date. Secondly, it is this very expertise to which Congress defers when it insists that the present application make specific reference to the priority application "as required by the Director." Indeed, at the relevant time the Director of the Patent and Trademark Office, by way of the administrative regulations, required that the '094 Patent Application contain a reference to the priority application, in this case the 1993 PCT Application, within the first sentence of the specification. Accordingly, the Court finds and concludes that the regulation in place at the time of the '094 Patent Application is not inconsistent with the relevant statutory provision, and is therefore proper and valid as a matter of law.

1. Compliance with 35 U.S.C. § 120

In defense of patent validity, Broadcast and IO Research first counter that the '094 Patent is entitled to the benefit of the filing date of the 1993 PCT Application because the '094 Patent Application complied with the terms of 35 U.S.C. § 120 with respect to that priority date, and because the Patent and Trademark Office, by way of regulations, cannot deny a patent applicant its rights under federal law as the agency has done through the more demanding language of the 1997 Regulation. Specifically, Broadcast and IO Research cite to language from two Federal Circuit cases in support of their defense. Broadcast and IO Research first state, "The plain and unambiguous meaning of [35 U.S.C. § 120] is that any application fulfilling the requirements therein 'shall have the same effect' as if filed on the date of the application upon which it claims priority." *Transco Products Inc. v.*

Performance Contracting Inc., 38 F.3d 551, 556-57 (Fed. Cir. 1994). Broadcast and IO Research also insist that neither the Patent and Trademark Office nor the Courts can deny rights granted under the mandatory, rather than permissive, language of 35 U.S.C. § 120. *Racing Strollers Inc. v. Tri Industries Inc.*, 878 F.2d 1418, 1421 (Fed. Cir. 1989).

The Court disagrees with the defense. First, neither referenced decision addresses either the language of the relevant administrative regulation or its intersection with the federal statute. Moreover, neither case deals with an application error similar to the one before this Court. True, the quoted language seems on point, however to take the language out of its true context and place it within a context more befitting of the stated defense, as Broadcast and IO Research would have us do, would, in effect, trivialize an otherwise valid administrative regulation. In other words, the cited cases do not, in this Court's reading, stand for the proposition that compliance with 35 U.S.C. § 120 provides the requested priority date even if that same patent application fails to comply with the terms of an analogous, though somewhat more demanding, administrative regulation.

Secondly, the Court finds that compliance with statutory language does not excuse noncompliance with related, validly promulgated regulation language. To find otherwise would undermine directly the very force and effect of 35 U.S.C. § 2(b)(2) wherein Congress delegated rule-making authority to the Patent and Trademark Office. Moreover, it would amount to a certain kind of irony were the Court to undercut the power of one statute, namely 35 U.S.C. § 2(b)(2), to give a certain supremacy to another, namely 35 U.S.C. § 120.

Third, and finally, the Court finds that the '094 Patent Application does not actually comply with the language of 35 U.S.C. § 120 with respect to its claimed priority date. The statute reads, in pertinent part, "No application shall be entitled to the benefit of an earlier filed application under this section unless an amendment containing the specific reference to the earlier filed application is submitted at such time during the pendency of the application *as required by the Director*." 35 U.S.C. § 120 (emphasis added). In this case not only has the Director required, by way of the 1997 Regulation, that the '094 Patent Application contain in the first sentence of the specification a reference the each priority application, but the Director has also required, by way of the Patent Examiner's Office Action Summary, that in order to claim priority the '094 Patent Application, again, "must contain a specific reference to the prior application(s) in the first sentence of the specification (37 C.F.R. [§] 1.78)." As discussed, the '094 Patent Application failed in that regard, and, as such, the patent applicants failed to perform "as required by the Director" in violation of 35 U.S.C. § 120.

B. Compliance with the 1997 Regulation

Charter contends that IO Research failed to comply with the 1997 Regulation, the governing regulation, in claiming a priority date relating back to the 1993 PCT Application, and, as a result, the '094 Patent is invalid under 35 U.S.C. § 102(b).

Broadcast and IO Research first counter that the '094 Patent Application is both in compliance with the current regulations and it is consistent with the goals, if not the terms,

of the then-governing regulation insofar as the application informs the Patent and Trademark Office that the applicant claims the benefit of the 1993 PCT Application date. Broadcast and IO Research also counter that invalidating the '094 Patent under 35 U.S.C. § 102(b) deprives the patent applicant "of a substantial property right" by exploiting the trivial and ignoring that which is vital and important.

First, the Court finds it irrelevant that the '094 Patent Application complies with the terms of the 2003 Regulation. Quite simply, the '094 Patent Application did not comply with the explicit "first sentence of the specification" requirement of the 1997 Regulation. The fact that the regulation was thereafter amended to omit that requirement, and the fact that the '094 Patent Application happened, then, to comply with the amended regulation, does not excuse the applicant's neglect; the Court cannot reward the patent applicant for such rule-making luck. Moreover, Broadcast and IO Research have not presented, and the Court is unable to find, any case law wherein a patent applicant's failure to abide by a past-governing regulation is excused by virtue of the patent applicant's happenstance compliance with the terms of the newly amended regulation.

Second, as a corollary to the above, the Court finds it irrelevant that the '094 Patent Application comports with the goals, as opposed to the terms, of the 1997 Regulation. The Director of the Patent and Trademark Office found it necessary to require that patent applications make specific reference to all priority dates within the first sentence of the specification. As a result, and in the absence of any case law to the contrary, the Court is

unwilling to excuse the '094 Patent Application's failure to comply with such a requirement. As alluded to above, to hold otherwise would directly undermine the very statutory authority delegated to the Patent and Trademark Office pursuant to 35 U.S.C. § 2(b)(2).

Third, and finally, the Court finds that invalidating the '094 Patent neither deprives Broadcast and IO Research of a substantial property right nor does it exploit the trivial and ignore that which is vital and important. Opposing summary judgment, Broadcast and IO Research cite again to the *Racing Strollers Inc.* case wherein the Federal Circuit quoted from Judge O'Connell's dissent in *In re Application of Campbell* stating:

> The Patent Office has here deprived appellant of a substantial property right by a process of reasoning which exploits the trivial and ignores that which is vital and important. The Supreme Court has recently reiterated the long established rule which governs here, namely, that "A party seeking a right under the patent statutes may avail himself of all their provisions, and the courts may not deny him the benefit of a single one. These are questions not of natural but of purely statutory right."

878 F.2d at 1421 (quoting 212 F.2d 606, 612 (C.C.P.A. 1954) (O'Connell, J., dissenting)) (citations omitted). As noted, however the *Racing Stroller Inc.* case neither addresses the language of the relevant administrative regulation nor does it concern an application error similar to the one at bar. On the contrary, the *Racing Stroller Inc.* case dealt exclusively with the distinction between "design" and "utility" patents and the priority dates relating thereto. True, our's is a priority date case, although we are confronted with a different issue—the force and effect of administrative regulations and failure to abide thereby. As such, the *Racing Stroller Inc.* language is not binding.

That being the case, however, the Court still finds that patent invalidation neither deprives Broadcast and IO Research of a substantial property right nor does it exploit the trivial and ignore that which is vital and important. First, Broadcast and IO Research have not presented, nor has the Court been able to find, any precedent establishing a property right in an invalid patent. It is counterintuitive to claim a substantial right in a property, in this case the '094 Patent, that does not actually exist in light of this Court's invalidity conclusion.

Second, the Court will not declare trivial the violation of a validly promulgated administrative regulation. As discussed, the Director of the Patent and Trademark Office found it necessary, if not vital and important, to require that all patent applications claiming priority dates makes specific reference within the first sentence of the specification. Again, it would undermine the Director's proper authority were this Court to find and conclude that the '094 Patent Application's failure to comply with said requirement was likewise neither vital nor important. We will not engage in administrative second-guessing in this context.

As a result of the foregoing, the Court finds and concludes that there is clear and convincing evidence adequate to overcome the presumption of patent validity, and there are no genuine issues of material fact precluding summary judgment as to the '094 Patent's invalidity. The July 18, 1995 priority date claimed by the '094 Patent Application pursuant to the terms of the 1997 Regulation and as required by the Director is more than one year after the June 9, 1994 foreign publication date of the 1993 PCT Application, an application,

it is not disputed, describing the same invention as that embodied in the '094 Patent, in direct violation of 35 U.S.C. § 102(b).

II. Certificate of Correction

To remedy an otherwise improper patent application, a patent applicant is entitled to apply for a certificate of correction. In that vein, federal law provides in relevant part:

> Whenever a mistake of a clerical or typographical nature, or of minor character, which was not the fault of the Patent and Trademark Office, appears in a patent and a showing has been made that such mistake occurred in good faith, the Director may, upon payment of the required fee, issue a certificate of correction, if the correction does not involve such changes in the patent as would constitute new matter or would require re-examination. Such patent, together with the certificate, shall have the same effect and operation in law on the trial of actions for causes thereafter arising as if the same had been originally issued in such corrected form.

35 U.S.C. § 255. Broadcast and IO Research remain free to file a request for a certificate of correction in order to correct the failure to make reference to prior patent applications, however that certificate will have only prospective application. *See Adrain v. Hypertech Inc.*, 2001 WL 740542 (D. Utah 2001); *see also Southwest Software Inc. v. Harlequin Incorporated*, 226 F.3d 1280 (Fed. Cir. 2000) (holding that the operative language of 35 U.S.C. § 254, the same operative language found in 35 U.S.C. § 255, requires that a certificate of correction is only effective for causes of action arising after it is issued).

Accordingly, and for the foregoing reasons, it is hereby,

ORDERED that the Motion and Memorandum In Support of the Motion of Defendant Charter Communications Inc. for Summary Judgment of Invalidity of U.S. Patent 6,076,094 shall be, and is, **GRANTED**.

ORDERED that Comcast Corporation's Motion for Summary Judgment of Invalidity of United States Patent No. 6,076,094, with which defendant Charter Communications Inc. joins, shall be, and is, **DENIED** as moot.

Dated this 3d day of ~~July~~ August, 2004.

ALAN B. JOHNSON
UNITED STATES DISTRICT JUDGE
SITTING BY DESIGNATION

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

BROADCAST INNOVATION, L.L.C. and IO RESEARCH PTY LTD., Plaintiff(s), vs. CHARTER COMMUNICATIONS, INC., Defendant(s).	Case No. 03-WY-2223-AJ (BNB)

ORDER DENYING PLAINTIFFS' MOTION FOR RECONSIDERATION

This matter came before the Court on Plaintiffs' Motion for Reconsideration of the Court's Order Granting Defendant's Motion for Summary Judgment of the Invalidity of U.S. Patent 6,076,094. The Court, having reviewed the motion, the materials filed in support thereof and in opposition thereto, and being fully advised in the premises, **FINDS** and **ORDERS** as follows:

Facts

On August 5, 2004, Broadcast Innovation and IO Research ("Movants") filed a "Motion of Reconsideration of the Court's Order Granting Defendant's Motion for

Summary Judgment of Invalidity of U.S. Patent 6,076,094."

Movants claim that the Court's order, dated August 3, 2004 was incorrect as a matter of law and petition this Court to change its ruling. Movants allege that: (1) the Court incorrectly concluded that the '094 patent did not comply with the requirements of 35 U.S.C. § 120; and (2) that the '094 patent conformed with 37 C.F.R. § 1.78 within three months of the date of the '094 patent issuance. Accordingly, the Movants claim that the 094 should not be invalidated. The Movants, in an unusual procedural posture, further filed a "Supplement" to its motion to reconsider. In the supplement Movants argue that '094 claims priority to the '595 patent in the first sentence of the specification in compliance with 37 C.F.R. § 1.78(a)(2)(I) (1997), and thus the '094 patent should have a filing date of November 26, 1993, not July 18, 1995. Obviously, Charter Communications, the Defendant, disagrees.

The Defendant argues that the Movants' arguments are immaterial and/or incorrect. Defendant argues that assuming *arguendo* that the Movants actually did comply with §120, that the '094 patent was still invalid because it did not conform with Rule 1.78. Defendant further argues that the fact that Rule 1.78 was amended and subsequently changed three months after the '094 patent was issued does not affect the patent's underlying validity. Furthermore, Defendant argues that the Movants are trying

to improperly argue a new theory. Defendant contends that Movants' "Supplement" is an attemp to argue a new theory before this Court. Defendant also argues that the '094 patent was correctly determined to have a priority date of July 18, 1995; Defendant cites to the Manual for Patent Examination Procedure ("MPEP") for authority.

Standard of Review

Movants failed to cite by what authority they bring their Motion for Reconsideration in violation of Colorado Local Civil Rule 7.1 (c). However, most authorities agree that a Motion for Reconsideration, filed within ten days of judgment, should be construed as a motion to alter or amend judgment pursuant to Fed. R. Civ. Pro. 59(e). *See Sierra Club v. Tri-State Generation &Transmission Ass'n*, 173 F.R.D. 275 (D. Colo. 1997); *Mantle Ranches v. United States Park Serv.*, 950 F.Supp. 299, 300 (D. Colo. 1997); *see also Edward H. Bohlin Co. v. Banning Co.*, 6 F.3d 350 (5th Cir. 1995).

A rule 59(e) motion will be granted if: (1) motion is necessary to correct a manifest errors of law or fact upon which the judgment was based; (2) there is newly discovered or previously unavailable evidence; (3) to prevent manifest injustice; or (4) justified by an intervening change in controlling law. *See Mantle Ranches*, 950 F.Supp. at 300; *Gregg v. American Quasar Petroleum Co.*, 840 F. Supp. 1394, 1401-1404 (D. Colo. 1991)(intervening change in controlling law or clear error); *Webber v. Mefford*, 43

F.3d 1340, 1345 (10th Cir. 1994)(new evidence); *Atlantic States Legal Found., Inc. v. Karg Bros.*, Inc., 841 F. Supp. 51, 53 (N.D.N.Y. 1993)(prevent manifest injustice); *and* WRIGHT, MILLER & KANE, FEDERAL PRACTICE AND PROCEDURE: CIVIL 2D § 2810.1.

Note, however, that Motions to Reconsider are extraordinary, and should only be granted with the utmost discretion. *See Ruscavage v. Zuratt*, 831 F.Supp. 417 (D. Pa. 1993). Civil procedure rule which permits a district court to reconsider and amend a previous order offers an extraordinary remedy, to be used sparingly in the interests of finality and conservation of judicial resources. *Carroll v. Nakatani*, 342 F.3d 934 (9th Cir. 2003); *accord Boyd's Bit Service, Inc. v. Specialty Rental Tool & Supply, Inc.*, 2004 WL 1900595 (W.D.La.,2004)("Amendment of judgment is extraordinary remedy which must be used sparingly and should not be used to relitigate old matters, raise new arguments, or present evidence that could have been raised prior to entry of judgment.").

Furthermore, a litigant should be aware that the use of a motion to reconsider is not a "second bite at the apple" and when used to rehash arguments already laid before the Court becomes a drain, on already spare, judicial resources. *See Steele v. Young*, 11 F.3d 1518 (10th Cir. 1993). "A Rule 59(e) motion is 'not intended to routinely give litigants a second bite at the apple, but to afford an opportunity for relief in extraordinary circumstances.'" *First Nat. Bank in Manitowoc v. Cincinnati Ins. Co.*, 321 F.Supp.2d

988, 992 (E.D.Wis.,2004). Moreover, the motion for reconsideration is not a vehicle by which to present new arguments that could have been fully considered and argued in the first instance. *Id.*

Any analysis of a motion to reconsider must also be made in light of Fed. R. Civ. Proc. 61, which reads:

> No error in either the admission or the exclusion of evidence and no error or defect in any ruling or order or in anything done or omitted by the court or by any of the parties is ground for granting a new trial or for setting aside a verdict or *for vacating, modifying or otherwise disturbing a judgment* or order, unless refusal to take such action appears to the court inconsistent with substantial justice. The court at every stage of the proceeding must disregard any error of defect in the proceeding which does not affect the substantial rights of the parties.

Fed. R. Civ. Proc. 61 (emphasis added).

Furthermore, the burden is on the moving party to demonstrate that prejudice resulted from the error. *See Palmer v. Hoffman*, 318 U.S. 109, 116 (1943); *and Vincent v. Young*, 324 F.2d 266, 269 (10th Cir. 1963).

Analysis

Movants first argument for reconsideration is that the '094 patent actually complied with Section 120. In support of its conclusion, Movants point out that the Court

quoted Section 120 as it stands today, and not as it stood when the '094 patent was issued. In addition, the Movants suggest that the '094 patent actually complied with the then Section 120.

The Court has already ruled on this point. Assuming, *arguendo*, that the Movants are correct, and the Court did cite the temporally incorrect Section 120, the result of the ruling would not change. As Defendant correctly points out, the Court's ruling was based on the Movants' failure to comply with Rule 1.78, thus the exact language of Section 120 does not change the fact that Movants did not comply with the letter of Rule 1.78.

The Court should also point out that the misquote, if in fact correct, is harmless error and would not, nor could it, persuade the Court that its judgment was incorrect, or create a manifest injustice. *See* Fed. R. Civ. Proc. 61. Thus, the Court is unpersuaded by the Movants' first argument.

The Movants also argue that the '094 patent complied with Rule 1.78 within three months of the date of issuance. The Court dealt with the Movants' argument regarding this point in its judgment.

> First, the Court finds it irrelevant that the '094 Patent Application complies with the terms of the 2003 Regulation. Quite simply, the '094 Patent Application did not comply with the explicit "first sentence of the specification" requirement of the 1997 Regulation. The fact that the regulation was thereafter amended to omit that requirement, and the fact that the '094

> Patent Application happened, then, to comply with the amended regulation, does not excuse the applicant's neglect; the Court cannot reward the patent applicant for such rule-making luck. Moreover, Broadcast and IO Research have not presented, and the Court is unable to find, any case law wherein a patent applicant's failure to abide by a past-governing regulation is excused by virtue of the patent applicant's happenstance compliance with the terms of the newly amended regulation.

It does not matter if the '094 patent complied with later amended Rule 1.78. The result would still remain the same--'094 did not conform to the then valid administrative regulation and thus is invalid. Thus, the Court is unpersuaded by the Movants' second argument.

In a motion styled "Supplement to their motion for reconsideration..." the Movants outline a new argument for the validity of the '094 patent. The Movants suggest that the '094 patent claimed priority from the '595 patent, which in turn claimed priority to the PCT application that had a priority date of November 26, 1993. However, the relationship between the '595 patent and the PCT application was not enumerated in the first sentence of the '094 patent specification. Alternatively, the Movants argue that the '595 patent was the "national stage" patent for the PCT application. Designation as the national stage patent for the PCT patent, the Movants argue, relates the priority date back to the PCT application *ipso facto*.

The Defendant argues that the Movants should be estopped from presenting new

arguments on reconsideration, and further that the Movants' argument is incorrect. The Defendant contends that the failure to relate the '595 patent back to the PCT application is a fatal flaw, and thus does not relate the PCT's priority date back to the '094 patent.

As an initial consideration, this argument is new and thus is inappropriate for a motion to reconsider under 59(e). As the Tenth Circuit pointed out in *Steele v. Young*, 11 F.3d 1203, 1209 (10th Cir. 2001):

> [Movant] did not raise these issues until his Fed. R. Civ. P. 59(e) motion to amend or alter the district court's judgment, which is too late...Rule 59(e) cannot be used to expand a judgment to encompass new issues which could have been raised prior to issuance of the judgment. Trust Co. Bank v. U.S. Gypsum Co., 950 F.2d 1144, 1152 (5th Cir. 1992); Hagerman v. Yukon Energy Corp., 839 F.2d 407, 414 (8th Cir.), cert. denied, 488 U.S. 820, 102 L. Ed. 2d 40, 109 S. Ct. 63 (1988).

More to the point: "A motion for reconsideration is not however, an opportunity for the *losing party* to raise new arguments that *could have been presented originally.*" *See Matosantos Comm. Corp. v. Applebee's Int'l, Inc.*, 245 F.3d 1203, 1209 n.2 (10th Cir. 2001) (citations omitted)(emphasis added). The Movants were afforded every opportunity to make this argument below.

In *Simmons v. Bombardier*, 2004 U.S. Dist. LEXIS 15089 (N.D. Utah 2004), a similar argument was made, and failed. In *Simmons*, the court found that the patentee

incorrectly referred back to a prior application. The court held that the incorrect reference to a prior patent does not satisfy Rule 1.78 and thus the later patent cannot claim priority from the earlier application. *Id.* at *33. In *Simmons*, the patentee incorrectly related a patent, with an issuance date of November 17, 1998, as a continuation-in-part of another earlier patent with a priority date of July 1, 1993, which the patentee, in turn, related back as a continuation-in-part of a still earlier application with a priority date of December 9, 1992. *Id.* At *23. In fact the relationship between the patents was not continuation-in-part. The patentee argued that the patent had a priority date of December 9, 1992. The court disagreed, stating: "it seems clear that not only is it appropriate to require a statement of some relationship in an application, but a statement of the correct relationship." *Id.* at *33. The court in *Simmons* also pointed out that: "Parties viewing a patent and taking legal risks based upon it are entitled to know the correct relationship of the applications." *Id.* at *33.

Furthermore, in *Sampson v. Ampex*, 463 F.2d 1042, 1045 (2nd Cir. 1972)[1], the court stated that a patent would receive the benefit of Section 120 if:

The information required to be disclosed is information that would enable a

[1]A case relied on by *Simmons*. Movants contend that the Court should disregard *Sampson* because it was decided in 1972 and the policy regarding the public function notice has changed significantly. The Court disagrees.

person searching the records of the Patent Office to determine with a minimum of effort the exact filing date upon which a patent applicant is relying to support the validity of his application or the validity of a patent issued on the basis of one of a series of applications. In cases such as this, in which two or more applications have been filed and the validity of a patent rests upon the filing date of an application other than that upon which the patent was issued, a person, even if he had conducted a search of the Patent Office records, could unwittingly subject himself to exactly this type of infringement suit unless the later application adequately put him on notice that the applicant was relying upon a filing date different from that stated in the later application.

Moreover, the Court is persuaded by the Defendant's citation to the Manual of Patent Examining Procedure, which states:

> Where a nonprovisional application is claiming the benefit under 35 U.S.C. § 120 of a prior national stage application filed under 35 U.S.C. § 371, a suitable reference would read "This application is a continuation of U.S. Application No. 08/—, filed —, which was the National Stage of International Application No. PCT/DE95/—, filed —."

Manual of Patent Examining Procedure § 201.11, "Reference To First Application" at p. 200-54 (7th ed., Rev. 1, Feb. 2000).

An examination of the Movants' application clearly indicates that they did not make a specific reference to the "National Stage." The requirements are quite clear.

The Movants argue that the Manual of Patent Examining Procedure ("Manual) does not impose requirements, only suggestions, on how to comply with the patent regulations. This contention rings hollow, because the Movants fail to cite any authority to either support their position that the Manual is not an authority, or to offer an

alternative authority to dispute the Manual's direction on this point.

The Court finds that the Movants had to reference the '595 application to the PCT application in order to satisfy the statutory and regulatory requirements in order to receive the benefit of the prior patent's application date. Any other outcome would seem counter to the regulation's intention that the public could, on the face of the patent (in the first sentence no less), determine exactly the relationships between the patents. Without reference to the PCT patent, the public would have to dig up the '595 patent to determine the '094 patents relationship, something that the regulations and statutory scheme are aimed at avoiding. Thus, the Movants' argument in the "Supplement" are unpersuasive.

The Movants argue that Rule 1.78 gives them the option of either referencing the nonprovisional application (in this case the '595 patent) or the international patent (in this case the PCT). This seems counter to the policy that the public, when viewing the face of the patent, can determine the relationships between the prior applications and the present patent. Moreover, on the face of the '094 patent, the earliest priority date referenced in the first sentence of the '094 specification is July 18, 1995, which is more than a year after the June 9, 1994 publication date of the 1993 PCT Application. Movants cite no authority, nor can the Court find any authority, that allows for a priority date that is not specifically referenced in the specification.

Accordingly, it is hereby

ORDERED, that the Plaintiffs' Motion for Reconsideration of the Court's Order Granting Defendant's Motion for Summary Judgment of the Invalidity of U.S. Patent 6,076,094 is **DENIED**. It is further,

ORDERED, based on the Court's ruling on the motions in this matter, that the hearing set for October 1, 2004 is **VACATED** per Colorado Local Rule 7.1(G).

Dated this 13th day of September, 2004.

ALAN B. JOHNSON
UNITED STATES DISTRICT JUDGE
SITTING BY DESIGNATION

tab 9

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
Magistrate Judge Boyd N. Boland

FILED
UNITED STATES DISTRICT COURT
DENVER, COLORADO

JAN - 6 2003

JAMES R. MANSPEAKER
CLERK

Civil Action No. 01-WY-2201-AJ (BNB)

BROADCAST INNOVATION, LLC,

Plaintiff,

v.

ECHOSTAR COMMUNICATIONS CORPORATION,
HUGHES ELECTRONICS CORPORATION,
DIRECTV, INC.,
THOMSON MULTIMEDIA, INC., and
PEGASUS SATELLITE TELEVISION, INC.,

Defendants.

ORDER ON ISSUES OF CLAIM CONSTRUCTION

This is a patent infringement case brought by Broadcast Innovation, L.L.C. ("Broadcast"), asserting that the defendants infringe two separate U.S. patents--Patent No. 6,076,094 (the "'094 Patent") and Patent No. 4,993,066 (the "'066 Patent"). The patents claim inventions relating to broadcasting data to a television set using a carrier signal (the '094 Patent), and a method for television scrambling (the '066 Patent).

The plaintiff claims infringement of claims 8, 15, 22, and 29 of the '094 Patent, and infringement of claims 9, 10, and 11 of the '066 Patent. The issue now before me is construction of the disputed claims. I have received voluminous briefing from the parties, and I held a day-long Markman hearing on October 22, 2002.

I. The Law of Claim Construction

"The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims." Embrex, Inc. v. Service Engineering Corp., 216 F.3d 1343, 1347 (Fed. Cir. 2000)(internal quotations and citation omitted). Claim construction is a matter of law for the court. Markman v. Westview Instruments, Inc., 517 U.S. 370, 384 (1996). In construing claims, the analytical focus is on the language of the claims themselves because "it is that language that the patentee chose to use to 'particularly point out and distinctly claim the subject matter which the patentee regards as his invention.'" Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1201-02 (Fed. Cir. 2002) (quoting Interactive Gift Express, Inc. v. Compuserve, Inc., 256 F.3d 1323, 1331 (Fed. Cir. 2001), and 35 U.S.C. § 112). There is a "heavy presumption" that the claim terms carry the ordinary and customary meaning that would be attributed to them by one skilled in the relevant art. Texas Digital, 308 F.3d at 1202; Johnson Worldwide Associates, Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999).

To illuminate the words of the claims, I may use intrinsic and extrinsic evidence. Intrinsic evidence consists of, in addition to the claim language itself, the specification and the prosecution history. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1365 (Fed. Cir. 2002)(stating that "[c]laim interpretation begins with an examination of the intrinsic evidence, i.e., the claims, the rest of the specification and, if in evidence, the prosecution history"). In addition, dictionaries, encyclopedias, and treatises are particularly useful resources to assist in determining the ordinary and customary meanings of claim terms. Texas Digital, 308 F.3d at 1202. As the Court of Appeals for the Federal Circuit recently stated:

> Dictionaries are always available to the court to aid in the task of determining meanings that would have been attributed by those of skill in the relevant art to any disputed terms used by the inventor in the claims.
>
> When a patent is granted, prosecution is concluded, the intrinsic record is fixed, and the public is placed on notice of its allowed claims. Dictionaries, encyclopedias and treatises, publicly available at the time the patent is issued, are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art. Such references are unbiased reflections of common understanding not influenced by expert testimony or events subsequent to the fixing of the intrinsic record by the grant of the patent, not colored by the motives of the parties, and not inspired by litigation.
>
> * * *
>
> As resources and references to inform and aid courts and judges in the understanding of technology and terminology, it is entirely proper for both trial and appellate judges to consult these materials at any stage of a litigation, regardless of whether they have been offered by a party in evidence or not. Thus, categorizing them as "extrinsic evidence" or even a "special form of extrinsic evidence" is misplaced and does not inform the analysis.

Id. at 1202-03 (internal citations omitted).

Extrinsic evidence may properly be consulted when, after considering the intrinsic evidence, there remains an ambiguity in the meaning of the claim language. Phillips Petroleum Co. v. Huntsman Polymers Corp., 157 F.3d 866, 870 (Fed. Cir. 1998). In addition, I may consult extrinsic evidence to enhance my understanding of the technology involved in the patent. DeMarini Sports, Inc. v. Worth, Inc., 239 F.3d 1314, 1322-23 (Fed. Cir. 2001). Extrinsic evidence includes expert testimony.

A patentee need not describe in the specification "every conceivable and possible future embodiment of his invention." CCS Fitness, 288 F.3d at 1366. In addition, it is improper to

limit the scope of a claim to the preferred embodiment or specific examples disclosed in the specification. Ekchiam v. Home Depot, Inc., 104 F.3d 1299, 1303 (Fed. Cir. 1997). However, a claim "may not be construed [by the patentee] one way in order to obtain allowance and in a different way against accused infringers." Spectrum Int'l v. Sterlite Corp., 164 F.3d 1372, 1379 (Fed. Cir. 1998)(internal citations omitted).

Where the preamble to a claim asserts an "improvement" on a known invention, the claim is in "Jepson" form. 37 C.F.R. § 1.75(e) (1996). "When this form is employed, the claim preamble defines not only the context of the claimed invention, but also its scope." Rowe v. Dror, 112 F.3d 473, 479 (Fed. Cir. 1997). In such patents, the language of the preamble defines in part the structural elements of the invention at issue. Id. It also admits that the preamble limitations already exist and are known or conventional in the prior art. Id.

The defendants assert that the claims of the '066 Patent are written in a means-plus-function format. A means-plus-function limitation recites a "means for" performing a particular function but provides no instruction as to the structure or materials for executing that function. Means-plus-function claims are construed pursuant to 35 U.S.C. § 112, ¶6:

> An element in a claim for a combination [where the claim encompasses two or more elements combined to work together] may be expressed as a means or step for performing a specified function without the recital or structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Section 112, 35 U.S.C., "operates to restrict claim limitations drafted in such functional language to those structures, materials or acts disclosed in the specification (and their

equivalents) that perform the claimed function. Personalized Media Communications, LLC v. ITC, 161 F.3d 696, 703 (Fed. Cir. 1998).

Whether a claim is written in means-plus-function format is a question of law. Id. at 702. Use of the word "means" in a claim limitation creates a presumption that section 112, paragraph 6 has been invoked, but that presumption may be rebutted if the properly construed claim limitation itself recites sufficiently definite structure to perform the claimed function. Kemco Sales, Inc. v. Control Papers Co., Inc., 208 F.3d 1352, 1361 (Fed. Cir. 2000).

If the claim embodies means-plus-function language, I must determine the structures identified in the specification that perform that function. "The applicant must describe in the patent specification some structure which performs the specified function. . . . [A] court must construe the functional claim language 'to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.'" Valmont Industries, Inc. v. Reinke Mfg. Co., 983 F.2d 1039, 1042 (Fed. Cir. 2001).

II. The '094 Patent

The '094 Patent discloses that its object is to "provide a system by which a database can be distributed from a central station with thematically linked data to one or more users at remote locations and where the user can automatically group the received data for interpretation according to the demands of the user in an efficient and fast manner compared with prior art systems. . . ." '094 Patent, col. 1, lines 32-38. The data is broadcast using a carrier signal such as a television or commercial radio carrier signal. Id. at Abstract.

The '094 Patent builds on a system known as Teletext. Id. at col. 1, lines 17-18. According to the description of the background art:

> The teletext system utilizes the vertical blanking interval (VBI) of a television transmission for the purpose of broadcasting predetermined blocks of text material. The blocks of text are organized as pages where each page provides one screen of text material. The text format for each page is fixed as are the total number of pages of text material. The pages are broadcast repeatedly consecutively. Noted defects of this kind of system include the rigidity of the text in its page format and also the significant delays that can be encountered whilst a user waits for a requested page to come around to its time for re-transmission.

Id. at lines 17-29.

The inventors describe the improvements of their invention over the known art as follows:

> It should be appreciated that the present invention described with respect to the first embodiment has many advantages over previous distributed database systems such as Videotex and Teletext. Moreover, the particular concept of using a data record as the basic logic unit rather than a fully formatted page, as is the case with Teletext provides for more records to be transmitted more quickly. This is especially useful if the records are small such as in small advertisements.
>
> Furthermore, the particular method of processing the received information and determining storage before displaying the same and the methodology of searching and displaying selected records instead of complete pages, overcomes the many limitations of Teletext. Accordingly in the present system, the majority of data which is transmitted are actual displayable records, whereas this is not the case in Teletext.

Id. at col. 9, lines 43-59.

Broadcast has asserted infringement of claims 8, 15, 22, and 29 of the '094 Patent. Claims 8 and 29 cover a method and apparatus for broadcasting data; claims 15 and 22 are directed to a method and apparatus for receiving data that has been broadcast. The claims at issue are set out below, with the disputed terms highlighted:

Claim 8:

8. In a method for **broadcasting data to a television set using a carrier signal such as a television or commercial radio carrier signal,** the improvement comprising:

constructing a data stream from the **records** of a transmission database; and

the database having individual first records, each first record comprising **one of a selection of formats,** at least one of the first records comprising executable program code or an object; **broadcasting the data stream within the carrier signal.**

Claim 15:

15. In a method for **receiving data for a television display using a carrier signal such as a television or commercial radio carrier signal,** the improvement comprising:

receiving a carrier signal and from it decoding a data stream to a user's database, the user's database comprising individual **records** comprising **records recovered from the data stream,** the individual records comprising **one of a selection of formats** and at least one record comprising executable program code or an object broadcast from the first records;

determining the format an individual record using a control program;

running, **when required,** the executable program code; and

generating a display on the television **consistent with the format determined by the control program.**

Claim 22:

22. In a communications device such as a personal computer or television or set top box adapted to receive **a data stream broadcast over a carrier signal**, such as a television or radio carrier signal, the improvement comprising:

a receiver for receiving broadcast database records;

a **decoder** and processor for extracting individual data records from the data stream to a user's database, the user's database comprising individual use records comprising at least some **records recovered from the broadcast database records**:

the user records recovered from the broadcast database records comprising **one of a selection of formats** and at least one record comprising executable program code or an object broadcast from the first records;

a control program for determining the format a user record;

A processor for running, **when required**, the executable program code; and

a display generator for creating a display **consistent with the format determined by the control program.**

And, claim 29:

29. In a device for broadcasting a carrier signal such as a television or commercial radio **carrier signal** to a user, the improvement comprising:

a computer having a transmission database;

the database having individual first records, each first record comprising **one of a selection of formats**, at least one of the first records comprising executable program code or an object;

an encoder for creating a packet based data stream constructed at least in part from the first records;

an inserter for inserting the data stream into another signal

and a transmitter for broadcasting the data stream.

A. The Indefiniteness Argument

Initially, the defendants argue that each of the four claims of the '094 Patent is invalid as indefinite because each claim contains an exemplary phrase in its preamble. Specifically, each claim concerns a method for broadcasting or receiving data using "a carrier signal **such as a television or commercial radio carrier signal**. . . ." According to the defendants, "[s]uch an exemplary phrase makes a claim indefinite, and hence invalid." Defendants' Joint Opening Claim Construction Brief for the '094 Patent, at p. 13. I do not agree.

Recently, in Catalina Marketing Int'l, Inc. v. Coolsavings.Com, Inc., 289 F.3d 801 (Fed. Cir. 2002), the Court of Appeals for the Federal Circuit reviewed a claim construction of the phrase "located at predesignated sites such as consumer stores." The court did not invalidate the claim by rote, as the defendants argue I must, but stated instead:

> The district court correctly found that the term "such as" means "of a kind or character about to be indicated, suggested, or exemplified; for instance." Despite correctly characterizing "such as" as exemplary language, the district court erroneously equated "point of sale" with "consumer store." "Such as" introduces an example of a broader genus rather than limiting the genus to the exemplary species.

Id. at 811.

Here, as in Catalina Marketing, the term "such as" means "of a kind or character about to be indicated, suggested, or exemplified; for instance." The use of the phrase does not render the claims so indefinite as to be invalid; to the contrary, the phrase "a carrier signal such as a television or commercial radio carrier signal," as used in the '094 Patent, is readily understood to

mean a carrier signal of the kind or character used in connection with the broadcast of television or commercial radio signals.

B. The '094 Patent Claims Are Jepson Claims

It is undisputed that the claims of the '094 Patent are Jepson claims. Record of Proceedings of October 22, 2002 (the "Record"), at p. 27 (where Mr. Suder, counsel for Broadcast, states "[A]nd a quick word, Your Honor, about the language used in the preamble. The first part of this is known as the preamble. And when you use the word 'improvement,' the cases say it's a Jepson claim. We don't dispute that."); and Joint Reply Brief of Defendants . . . for the '094 Patent, at p.2.

C. The Disputed Claim Terms

The parties have identified six groups of disputed claim terms in the '094 Patent, as follows:

1. "broadcasting [or receiving] data . . . using a carrier signal such as a television or commercial radio carrier signal"

The dispute is over the meaning of the term "carrier signal." The plaintiff contends that the term means a signal modulated to carry data. Joint Claim Construction Brief, Exh. A. The defendants, by contrast, argue that "carrier signal" should be limited to an analog baseband TV signal or main or secondary channel of an AM or FM radio signal. Id.

The distinction is explained in the affidavit of Dr. Stephen Castell, offered by the defendants. According to Dr. Castell:

> 12. As [a] television frame is recorded, it must be converted to a mode that can be transmitted. Television uses a signal to carry the picture. Generally speaking, in the broad field of electronics, a signal is a measurable quantity such as a voltage. In traditional

television technology, an analog signal is modified by increasing or decreasing voltage over time. These variations correspond to how light or dark part of the picture is, for example. . . . Circuitry in the television interprets the variations to reproduce the picture on the screen.

* * *

17. The "baseband" television signal is the television video signal, including the scan lines, the blanking intervals, and the sync pulses, in an "unmodulated" form that is used to drive the electron beam(s) in a television. If the images did not need to be broadcast over long distances (such as through the atmosphere), the television camera could send an unmodulated, baseband signal to a television set. But, since television is broadcast over long distances, the baseband television signal is sent over on a radio frequency (RF) wave.

18. An RF wave is an electromagnetic wave that cycles a certain number of times per second that is characteristic of the radio spectrum. The more times per second the wave cycles, the higher the frequency. . . .

19. To use the RF wave, the television signal must modulate it. This is done by modifying the RF wave using the television signal. . . .

20. However, an RF wave modulated with a video signal cannot be directly used to drive the electron beam in a television. It must first be demodulated back to the baseband video signal.

Declaration of Dr. Stephen Castell In Support of Defendants . . . Joint Opening Claim Construction Brief for the '094 Patent (the "Castell Declaration"), at ¶¶ 12, 17-20.

The parties conceded at the Markman hearing that there are two carrier signals--(1) the low frequency baseband television signal, and (2) the higher frequency RF wave that broadcasts the television signal through the atmosphere to distant locations. See Record, p. 24, lines 5-23; p. 73, lines 7-23; p. 110, line 14-p. 111, line 12. The issue for construction is which "carrier signal" is referred to in the claims at issue.

I agree with the plaintiff that the term "carrier signal such as a television or commercial radio signal" means a signal modulated to carry data. I reject the defendants' position that the low frequency baseband signal is the carrier signal as that term is used in the claims of the '094 Patent.

My conclusion is based on the plain language of the claims themselves. In particular, claim 8 states that it concerns "a method for broadcasting data to a television set using a carrier signal such as a television or commercial radio carrier signal." '094 Patent, col.22, lines 21-23. Broadcast means the "[t]ransmission of a radio or television program or signal," The American Heritage Dictionary of the English Language, 167 (1971), and a transmission is "[t]he sending of modulated carrier waves from a transmitter." Id. at 1364 (emphasis added). Combining the two terms, to broadcast is to send radio or television signals by a modulated carrier wave. Thus, it is the modulated radio frequency wave that is broadcast, not the low frequency baseband television signal. In addition, the claim deals with broadcasting "to a television set." According to Dr. Castell, the baseband television signal is "made to modulate the appropriate RF frequency for transmission"; it is not broadcast to a television set. Castell Declaration, at ¶23(4). It is the RF wave that is transmitted to a television set and demodulated to reproduce the baseband television signal. Id. at ¶¶23(4)-23(6). Also, the claim states that the broadcast is accomplished "using a carrier signal such as a television . . . carrier signal." '094 Patent, col. 22, lines 22-23 (emphasis added). Significantly, the claim does not say that the broadcast is accomplished using a "baseband television signal" or even a "television signal," as it would to express the construction advanced by the defendants. To the contrary, the broadcast is accomplished using a television or

commercial radio carrier signal. The carrier signal utilized to broadcast a television signal is a modulated radio frequency wave.

My conclusion also finds support in the specification. For example, the specification provides that a "data stream is inserted into the vertical blanking interval (VBI) of the television broadcast signal transmitted from the central station and is subsequently broadcast over the ether to be received by the receiver stations. . . ." '094 Patent, col. 4, lines 18-22 (emphasis added). Significantly, the data is inserted into the "television broadcast signal," or baseband television signal, and not the carrier signal. By contrast, the claims specify that they concern a method for broadcasting using a carrier signal such as a television carrier signal. Thus, when the inventors meant to describe the baseband television signal, into which the data is inserted, they used the term "television broadcast signal," but when they meant to describe the modulated RF signal used to broadcast the data through the atmosphere, they used the term "carrier signal such as a television or commercial radio carrier signal."

Nor is the term "carrier signal" limited to a radio frequency signal. To the contrary, the specification provides that "the TV broadcast signal can be delivered by any one of a number of known methods including VHF/UHF transmission[,] microwave transmission, satellite transmission, fibre optic transmission." '094 Patent, col. 15, lines 50-54.

I construe the term "carrier signal such as a television or commercial radio signal" to mean a signal modulated to carry data.

I construe the term "broadcasting data . . . using a carrier signal such as a television or commercial radio carrier signal" to mean transmitting data by means of a signal modulated to carry data.

I construe the term "data stream broadcast over a carrier signal" to mean a data stream broadcast by means of a signal modulated to carry data.

I construe the term "receiving data . . . using a carrier signal such as a television or commercial radio carrier signal" to mean receiving data broadcast by means of a signal modulated to carry data.

I construe the term "broadcasting the data stream within the carrier signal" to mean broadcasting a data stream by means of a signal modulated to carry data.[1]

2. "to a television set"

The plaintiff contends that the term "to a television set" as used in claim 8 of the '094 Patent means to a television set or a receiver for a television set. Joint Claim Construction Brief, Exh. A. The defendants, by contrast, argue that the term means that the broadcast must be directly to a television set and not to any component residing outside of a television set. Id.

Although the plaintiff argues that its construction comports with the ordinary meaning of the phrase "to a television set," Broadcast's Opening Claim Construction Brief at pp. 18-19, where does the additional language of "or a receiver for a television set" have its origin? According to the plaintiff, the specification describes an embodiment in which receiving and decoding are accomplished by a set top box or receiver connected to the television, and not by the television set alone, pointing to the following:

[1]The defendants do not dispute the statement contained in the plaintiff's opening brief that although the claims contain differing language--i.e., "using a carrier signal"; "over a carrier signal"; and "within a carrier signal"--"the parties dispute over these phrases is solely a reflection of their differences regarding the definition of 'carrier signal.'" Broadcast's Opening Claim Construction Brief, at p. 18. Therefore, I accept the parties' concession that there is no significance in the varying formulations of the expression.

> In conceptual terms, the database receiver at a receiver station generally comprises decoder means, receiver processing means, memory means, input means and means for communicating selected database data.

'094 Patent, col. 4, lines 43-46.

The defendants argue that the doctrine of claim differentiation precludes the plaintiff's proposed construction. The doctrine of claim differentiation provides that when a limitation is included in several claims but stated in terms apparently different in scope, "there is presumed to be a difference in meaning and scope. . . ." Tandon Corp. v. U.S. Int'l Trade Comm., 831 F.2d 1017, 1023 (Fed. Cir. 1987).

In support of their claim differentiation argument, the defendants point out that while claim 8 limits a broadcast "to a television set," claim 22 concerns the receipt of broadcast data by "a communications device such as a personal computer or television or set top box adapted to receive a data stream. . . ." Similarly, claim 29 concerns the broadcast of a carrier signal to "a user."

When the inventors meant to be expansive in describing various receptors of a broadcast, they used expansive language, including receipt by "a personal computer or television or set top box," '094 Patent, col. 23, lines 17-19, and receipt by a "user." Id. at col. 24, lines 14-15.

The plaintiff argued for the first time at the Markman hearing that the use of different language can be explained by the fact that claim 8 concerns broadcasting information, not receiving it, and therefore less thorough language was used. Claim 22, the plaintiff argues by distinction, concerns receiving broadcast information, and there the more expansive language of receipt "by a personal computer or television or set top box" is used. Record, pp. 35-37. The

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 6,076,094
DATED : June 13, 2000
INVENTOR(S) : Thomas A. COHEN et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the cover of the printed patent, at Item [62], Related U.S. Application Data, "Jul. 18, 1995, Pat. No. 5, 737, 595" should be ---filed as application No. PCT/AU93/00607, Nov. 26, 1993, now Pat. No. 5, 737, 595---.

On the cover of the printed patent, at Item [62], Related U.S Application Data, "Jul. 18,1995, Pat. No. 5,737, 595" should be --- filed as application No. PCT/AU93/00607, Nov. 26, 1993, now Pat. No. 5, 737, 595---.

On the cover of the printed patent, the following Foreign Application Priority Data is omitted and should be included, as follows:

---[30]Foreign Application Priority Data

Nov.27,1992[AU]	PL6080
Aug.13,1993[AU]	PM0549
Aug.20,1993[AU]	PM0742
Sep.30,1993[AU]	PM1570
Sep.30,1993[AU]	PM1571
Oct.01,1993[AU]	PM1621---

At column 1. lines 7-8 of the printed patent, "filed Jul. 18,1995, now patented as U.S. Pat. No. 5,737,595." should be --- which is a 371 of PCT/AU93/00607 filed Nov. 26, 1993, now U.S. Pat. No. 5,737,595.---.

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PATENT NO. 6,076,094

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difference in language can be explained by the different purposes of the claims. But as the defendants countered at the Markman hearing, the inventors used the most expansive language of all--broadcast "to a user"--in claim 29, a claim dealing with broadcasting, like claim 8, and not with receiving a broadcast. Record, pp. 77-78.

The plaintiff has presented no evidence to rebut the presumption that the use of different and far more restrictive language in claim 8, concerning broadcasting "to a television set," was not intentional. Modine, 75 F.3d at 1551. Applying the doctrine of claim differentiation, I agree with the defendants, and I construe the term "to a television set" as used in claim 8 to mean directly to a television set and not to any component residing outside of a television set. I reject the plaintiff's position that "to a television set" includes also to a receiver for a television set.

3. "constructing a data stream"

Claim 8 of the '094 Patent provides in relevant part:

> In a method for broadcasting data to a television set using a carrier signal such as a television or commercial radio carrier signal, the improvement comprising:
>
> constructing a data stream from the records of a transmission database. . . .

'094 Patent, col. 22, lines 21-25 (emphasis added).

The plaintiff claims that the term "constructing a data stream" as used in claim 8 means creating a series of information. Joint Claim Construction Brief, Exh. A. The defendants, by contrast, argue that "constructing a data stream" means extracting records from the transmission database and forming a single, serial signal. Id.

The briefing on this issue is not particularly informative. The issue, as explained at the Markman hearing, is as follows:

> Well, the difference is, Your Honor, you can do what is described, taught, enabled in the 094 patent, which is you can take some data, you can take every little piece of that data, you can send it in a serial way, you can load it up on the television signal, and it will go out in that--in that sort of--it's a simple, more--you know, less sophisticated technology. That's all this patent talks about.
>
> There are other technologies where you do create many multiple streams. You don't set it up that sort of single serial sort of way. You have--you take your data, and maybe you put it into 10, 15, 20 different streams, and it all goes out there, and with the advent of huge computer power and enormous advances in technology, you can then reconstruct all that--you take all that data stream . . . and then it can be put back together at the other end. . . . So that's the difference. And that type of technology is not described.

Record, at pp. 82-83.

The defendants argue that "[a]lthough patent claims are not necessarily limited to the preferred embodiment described in the specification, 'claims may be no broader than the supporting disclosure, and therefore . . . a narrow disclosure will limit claim breadth.'" Joint Reply Brief of Defendants . . . Regarding Claim Construction for the '094 Patent, at p. 16 (quoting Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1480 (Fed. Cir. 1998)). The defendants argue further that because the '094 Patent does not "disclose or enable a multi-stream system, the scope of the purported invention is properly limited to a single, serial transmission."

As discussed earlier, there is a "heavy presumption" that the claim terms carry the ordinary and customary meaning that would be attributed to them by one skilled in the relevant art. Texas Digital, 308 F.3d at 1202; Johnson Worldwide, 175 F.3d at 989. Here, that ordinary

and customary meaning is that a "data stream" is "a sequence of data elements." The Dictionary of Computing, 127 (4th ed. 1996).

The defendants' restrictive construction is an attempt improperly to limit the scope of the claim to the preferred embodiment or specific examples disclosed in the specification. Ekchian, 104 F.3d at 1303. Although the invention may be described at times in the specification as transmitting a "sequential data stream," (col. 4, lines 39-40), or "processing . . . the serial data stream," (col. 5, lines 43-44), the specification does not always or necessarily limit the data stream to a single, serial data stream. For example, the specification discloses at col. 4, lines 13-26, a data stream that is not necessarily sequential or serial, but could be multiple:

> The datacast network utilizes television signals to convey digital information for the text display at the receiver stations. In this respect, the central station generates a stream of data which is encoded into datacast packets as defined by the World Standard Teletext specification and know [sic] as Packet 31 data. This data stream is inserted into the vertical blanking interval (VBI) of the television broadcast signal transmitted from the central station and is subsequently broadcast over the ether to be received by the receiver stations at which are located display screens, such as television receiver sets or video monitors on which selected groups of received information can be displayed, and remote user interface devices, such as keypad controllers or the like.

Remembering that a patentee need not describe in the specification "every conceivable and possible future embodiment of his invention," CCS Fitness, 288 F.3d at 1366, I adopt the construction of the term "constructing a data stream" urged by the plaintiff, and I construe the term to mean creating a series of information elements.

4. "records"

The plaintiff contends that the term "records" as used in the '094 Patent means entries in a database. Joint Claim Construction Brief, Exh. A. The defendants argue that as used in the patent, "records" are complete units of related data intended for display on a television screen. Id. The issue is whether all "records" must be "displayable records." I agree with the plaintiff that "records" are distinct from "displayable records" and that the term "records" as used in the claims are not required to be displayable.

The term "records" appears in each of the four claims at issue. Looking to claim 8 as an example, it provides in relevant part that the improvement of the patent involves "constructing a data stream from the records of a transmission database . . . [with] at least one of the first records comprising executable program code or an object." This last provision, "at least one of the first records comprising executable program code," appears in each of the four claims in suit.

The specification makes clear that data may be of at least two types--displayable data intended for display, and executable code which is not intended for display--stating:

> Broadly the data may be of a displayable nature intended for display and which is termed displayable data in this specification. Alternatively the data may be in the nature of executable code which can, for example, be directly executable by the data manipulator/CPU 123 or can be executable by the data manipulator/CPU after passing through an interpreter (which itself can form part of the control programme) or can comprise look up table data adapted for modification of the behavior of executable code already resident in executable data store 126.

'094 Patent, col. 13, lines 29-38 (emphasis added).

Because the specification provides that executable code is not necessarily displayable, and because the language of each of the four claims at issue expressly provides that at least one

record is to be comprised of executable code (which is not necessarily displayable), it is axiomatic that the claims do not require that every record be a displayable record. To construe the claims otherwise would do violence to their unambiguous language.

One of ordinary skill in the art would understand a record to be "an item in a database." The Illustrated Computer Dictionary, 245 (3d ed. 1986). I adopt this construction of the term.

The defendants contend that records must be displayable records, arguing first that such a construction is consistent with the core context of the '094 Patent which employs records to replace the teletext page as a variable sized display unit. The defendants point to the following language of the specification:

> It should be appreciated that the present invention described with respect to the first embodiment has many advantages over previous distributed database systems such as Videotex and Teletext. Moreover, the particular concept of using a data record as the basic logic unit rather than a fully formatted page, as is the case with Teletext[,] provides for more records to be transmitted more quickly. This is especially useful if the records are small such as in small advertisements.
>
> Furthermore, the particular method of processing the received information and determining storage before displaying the same and the methodology of searching and displaying selected records instead of complete pages, overcomes many limitations of Teletext. Accordingly, in the present system, the majority of data which is transmitted are actual displayable records, whereas this is not the case in Teletext. Moreover, in Teletext, the pages for eventual display are pre-formatted at the central station and therefore are transmitted as complete pages with display information, formatting characters and display colours. Thus, normally a large amount of empty space must be transmitted in every page that is transmitted making the Teletext method of broadcasting extremely inefficient.

'094 Patent, col. 9, lines 43-65 (emphasis added).

There is nothing inherently inconsistent in using a data record rather than a fully formatted page as the basic logic and display unit, on the one hand, and having both displayable and non-displayable records within the data stream, on the other hand. The specification recognizes this through the use of the distinct terms "records" and "displayable records."

The defendants argue, however, that the specification consistently equates the terms "records" and "displayable records," and that the terms therefore must be construed to have the same meaning, citing Pickholtz v. Rainbow Technologies, Inc., 284 F.3d 1365 (Fed. Cir. 2002). In Pickholtz, the Court of Appeals for the Federal Circuit held:

> We agree . . . that the proper construction of the term "computer" follows without ambiguity from the intrinsic evidence. . . . [T]he '353 patent uses the terms "computer" and "computer system" as synonyms. Although we would typically be inclined to give meaning to the word "system," rather than regard it as surplusage [citing Elekta Instrument S.A. v. O.U.R. Scientific Int'l, Inc., 214 F.3d 1302, 1307 (Fed. Cir. 2000)], the patent in this case provides no indication that the two terms mean different things. Instead, the patent uses the term "computer system" in the specification and the term "computer" in the claims; nothing in the patent itself explicates their relationship or indicates any difference in meaning.

Here, however, in contradistinction to the facts in Pickholtz, the terms "records" and "displayable records" both appear in the specification. According to the defendants, the term "records" appears 43 times in the specification, 26 times as "displayable records" and 17 times simply as "records."

I do not agree that the terms "records" and "displayable records" are used as synonyms. For example, the specification uses the term "records" more broadly to include displayable and non-displayable records, as follows:

> The central station 11 for the purposes of datacasting generally comprises a data store in the form of a computer file server 17 which is adapted to accumulate and store data in the form of digital records to form the database.

'094 Patent, col. 4, lines 26-29.

Thus, it is apparent that "displayable records" are a subset of "records." This distinction is further supported by the fact that the specification provides that "the majority," but not all, "of the data which is transmitted are actually displayable records." Id., at col. 9, lines 56-59. See Johnson Worldwide, 175 F.3d at 989 ("General descriptive terms will ordinarily be given their full meaning; modifiers will not be added to broad terms standing alone").

I construe the term "records" to mean an item in a database.

Also disputed are the construction of the terms "records recovered from the data stream" and "records recovered from the broadcast database records." The specification provides:

> In accordance with one broad aspect of the present invention, there is provided a distributed system comprising:
>
> a central station for accumulating and distributing data on a database; and
>
> a plurality of receiver stations for receiving said data. . . .
>
> * * *
>
> a said receiver station comprises: decoder means to receive and decode transmitted data so as to reconstitute said data therefrom. . .

'094 Patent, col.1, line 49-col. 2, line1.

The specification makes clear that "records recovered from" means records received from a transmission. Those records are decoded so as to reconstitute their data. Reconstitute means to restore to a former condition. Webster's Ninth New Collegiate Dictionary, 984 (1984).

I construe the terms "records recovered from the data stream" and "records recovered from the broadcast database records" to mean records received from the transmission and decoded so as to restore the transmitted data to its former condition.

5. "one of a selection of formats"

The plaintiff contends that the term "one of a selection of formats" means one of a plurality of types of data. The defendants assert that the term means that each record includes an indicator determining a single way of multiple available ways to display the record on the television screen.

The term is found in each of the four claims at issue, as follows:

Claim 8: "the database having individual first records, each first record comprising one of a selection of formats, at least one of the first records comprising executable program code or an object. . . ."

Claim 15: "the users database comprising individual records comprising records recovered from the data stream, the individual records comprising one of a selection of formats and at least one record comprising executable program code or an object broadcast from the first records. . . ."

Claim 22: "the user records recovered from the broadcast database records comprising one of a selection of formats and at least one record comprising executable program code or an object broadcast from the first records. . . ."

Claim 29: "a database having individual first records, each first record comprising one of a selection of formats, at least one of the first records comprising executable program code or an object. . . ."

The dispute is linked to the definition of "record" and whether a record must be

displayable. In the present setting, the issue is whether a selection of formats is limited to how data is arranged on a display screen or whether it includes also how data is arranged in a record, data file, or storage device. I already have construed "records" to include both displayable records and records which are not displayed.

The defendants advanced the definition of "format" contained in the McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994). Defendants Joint Opening Claim Construction Brief for the '094 Patent, at p. 28. The plaintiff endorsed that definition at the Markman hearing. Record, at p.43. The McGraw-Hill Dictionary defines "format" as "[t]he specific arrangement of data on a printed page, display screen, or such, or in a record, data file, or storage device." Id. at 792.

I adopt the ordinary meaning of the term "format" advanced by all of the parties and construe the term to mean the specific arrangement of data on a printed page or display screen or in a record, data file, or storage device.

Selection also has an ordinary meaning. "Select" means "[t]o choose from among several. . . ." The American Heritage Dictionary of the English Language, at 1177.

Combining the ordinary meanings of the two words, I construe the term "one of a selection of formats" to mean one of several arrangements of data on a printed page or display screen or in a record, data file, or storage device.

I reject the defendants' argument that each record must include "an indicator" determining the format. See Defendants Joint Opening Claim Construction Brief for the '094 Patent, at p. 29. Any such construction would improperly import into the claims a limitation from an embodiment of the patent. Texas Digital, 308 F.3d at 1204("Consulting the written

description and prosecution history as a threshold step in the claim construction process, before an effort is made to discern the ordinary and customary meanings attributed to the words themselves, invites a violation of our precedent counseling against importing limitations into the claims"). There simply is nothing in the language of the claims that requires each record to have "an indicator."

The two related terms identified by the defendants--"consistent with the format determined by the control program" and "when required"--have ordinary meanings and do not require construction.

6. "inserter" and "decoder"

The plaintiff contends that an "inserter" as used in claim 29 of the patent is an inserter for placing information into or on a signal and that a "decoder" as used in claim 22 needs no construction. Joint Claim Construction Brief, Exh. A. The defendants argue that an "inserter" should be construed to be a device for embedding data into the VBI lines of a video signal and that a "decoder" is a device for extracting data packets from the television VBI or commercial radio sideband. Id.

The parties agree that "inserter" is a term of art in the data broadcasting industry. Broadcast's Opening Claim Construction Brief, at p. 22 ("The claimed 'inserter' is a common device in the industry"); and Defendants Joint Opening Claim Construction Brief for the '094 Patent, at pp.33-34 ("The term[] 'inserter' . . . [is a term] of art in the data broadcasting industry"). They disagree, however, on whether it is limited to "'a device for embedding data into the VBI lines of a video signal,'" as the defendants contend, id., or whether it is broader and encompasses a device that can "be used to deliver a data stream over any one of a number of

known transmissions methods," including VHF/UHF, microwave, satellite, and fibre optics, as the plaintiff contends. Broadcast's Opening Claim Construction Brief, at p. 22.

Claims are to be construed in light of the specification. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). Accordingly:

> The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication. . . . The specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it. Thus, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.

Id.

The specification here describes the inserter as follows:

> The datacast network utilizes television signals to convey digital information for text display at the receiver stations. In this respect, the central station 11 generates a stream of data which is encoded into datacast packets as defined by the World Standard Teletext specification and know [sic] as Packet 31 data. This data stream is inserted into the vertical blanking interval (VBI) of the television broadcast signal transmitted from the central station 11 and is subsequently broadcast over the ether to be received by the receiver stations 13 at which are located display screens 15, such as television receiver sets or video monitors. . . .
>
> * * *
>
> The file server 17 is connected to a processing means in the form of a data broadcast inserter. The inserter 19 is adapted to extract digital records in the form of database data from the file server17 and generate a sequential data stream from this database data for distribution. Importantly, the inserter is adapted to insert this data stream into the VBI of the broadcast television signal. This combined signal is passed on to a transmission means 21 which includes appropriate modulation and transmission circuitry for encoding and transmitting the sequential data stream via an antenna in accordance with conventional broadcast practice.

'094 Patent, col. 4, lines 13-22 and 30-42 (emphasis added).

The specification uses the term "inserter" to describe a device that inserts data into the vertical blanking interval of a television video signal. No other function is assigned to the inserter, and no other definition is provided by the patentee.

The plaintiff argues incorrectly that "[t]he '094 patent also discloses embodiments where the data is inserted into a digital data stream for transmission over conventional methods, such as VHF/UHF transmission, microwave transmission or satellite transmission," citing the specification at col.15, lines 49-54. To the contrary, the specification indicates that the inserter acts on the video signal before the combined video signal with embedded data is modulated for transmission. The inserter embeds data into the VBI after the television signal is created but before it reaches any transmission means to deliver the signal, such as VHF/UHF, microwave, or satellite transmission.

Similarly, the specification uses the term "decoder" to describe a device that extracts the data from the vertical blanking interval:

> The decoder means is particularly designed, to decode the transmitted data so as to reconstitute the database from the transmitted data.

'094 Patent, col. 4, lines 50-52. This is further, but consistently, described in the specification at col. 5, lines 33-54.

I construe the term "inserter" to mean a device for embedding data into the vertical blanking interval of a television video signal.

I construe the term "decoder" to mean a device for extracting data embedded into the vertical blanking interval of a television video signal or commercial radio sideband.

III. The '066 Patent

The '066 Patent discloses a "method and device for inexpensively and efficiently controlling the distribution of pay-per-access information services" using "varying scrambling methods and user exchangeable cards." '066 Patent, Abstract. In the background section, the patent recites that "[c]urrently . . . unscrambling [of a transmission] occurs in an expensive digitally controlled decoder such as the M/A-Com Video Cipher II or the familiar cable black box." '066 Patent, col. 1, lines 16-19. The invention claimed in the '066 Patent is intended to "reduce the cost while increasing the security of secured signal reception." Id. at col. 1, lines 31-33.

The plaintiff describes the invention as follows:

> The specification of the '066 patent describes a system for scrambling signals whereby the unscrambling is accomplished through a removable card, also known as a "smart card." Prior art scrambling technology was not sufficiently effective to prevent pirates from developing their own equipment to unscramble the television signals. One method of increasing security was to change the technique of scrambling the signals. However, prior to the invention disclosed in the '066 patent, the broadcaster would have to provide a new receiver to each viewer every time the scrambling technique was changed. The invention of the '066 patent solves this problem by disclosing a smart card including unscrambling circuitry that is inserted into a receiving device and is used to unscramble the television signal. The smart card may be replaced with another card to unscramble the television signal in accordance with another scrambling technique.

Broadcast's Opening Claim Construction Brief, at p. 24.

Broadcast asserts that the defendants infringe claims 9, 10, and 11 of the '066 Patent. Claim 9 of the patent depends from claim 8. Those claims state:[2]

[2]The disputed terms are set out in bold.

8. An improved signal transfer device for a signal, the device comprising a **scrambling means for introducing some kind of objectionable interference or distortion into the signal selectively according to a particular one of a multiple of differing scrambling techniques, a transmitter means, said transmitter means transmitting the signal from said scrambling means,** a receiver, said receiver receiving the signal from said transmitting means, **an unscrambling means for removing the objectionable interference or distortion from the signal by acting on the signal from said receiver,** and said unscrambling means being substantially replaceable with differing unscrambling circuits **as appropriate to unscramble the particular one of a multiple of differing scrambling techniques** selected from said scrambling means so as to be compatible with said scrambling means to remove the objectionable interference or distortion from the signal form the receiver.

9. The improved device of claim 8 characterized in that said unscrambling means is substantially entirely on a user replaceable card.

Claims 10 and 11 of the '066 Patent, also in dispute, depend from claim 1. Those claims recite:

1. In a device incorporating a scrambling transmitter and a receiver incorporating an unscrambling circuit having **key elements** for secured passage of a signal, the improvement of means to incorporate **more than one scrambling technique** into the scrambling transmitter and **means for the selective interchange of the key elements of the unscrambling circuit** so as to allow **selective reception of the signals incorporating the differing scrambling techniques.**

10. The improved device of claim 1, characterized in that the **key elements** of the unscrambling circuit are on a card and include the **majority** of the unscrambling circuit, and said card being interchangeable with other cards.

11. The improved device of claim 1, characterized in that the **key elements** of the unscrambling circuit are on a card and include the **essential portion** of the unscrambling circuit, and said card being interchangeable with other cards.

A. Means-Plus-Function Elements In Claim 9

The defendants argue that, as a result of the use of the word means in each of the "scrambling means," "unscrambling means," and "transmitter means" elements, they are written in a means-plus-function format, and they must be construed according to 35 U.S.C. § 112, ¶6. Means-plus-function formatting applies to claim limitations that portray a function to be executed, but provide no instruction as to the structure or material for executing that function.

The plaintiff argues that section 112 is inapplicable to claim 9, citing Cole v. Kimberly-Clark Corp., 102 F.3d 524 (Fed. Cir. 1997). In Cole, the court was confronted with determining whether the term "perforation means . . . for tearing" was in means-plus-function format. The Federal Circuit held that it was not, reasoning:

> Merely because a named element of a patent claim is followed by the word "means," however, does not automatically make that element a "means-plus-function" element under 35 U.S.C. § 112, ¶ 6. . . . We decide on an element-by-element basis, based upon the patent and its prosecution history, whether § 112, ¶ 6 applies.
>
> * * *
>
> The drafter of claim 1 in the '239 patent was clearly enamored of the word "means": six of seven elements in that claim include the word "means" which occurs in the claim fourteen times. We find, however, no reason to construe any of the claim language in claim 1 as reciting means-plus-function elements within the meaning of § 112, ¶ 6. For example, the "perforation means . . . for tearing" element of Cole's claim fails to satisfy the statute because it describes the structure supporting the tearing function (i.e., perforations).

Id. at pp. 530-31.

The plaintiff also relies on Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580 (Fed. Cir. 1996), where the court held that the element "detent mechanism" was not in means-plus-function format, stating:

> Many devices take their names from the functions they perform. The examples are innumerable, such as "filter," "brake," "clamp," "screwdriver," or "lock." Indeed, several of the devices at issue in this case have names that describe their functions, such as "graspers," "cutters," and "suture applicators."
>
> "Detent" (or its equivalent, "detent mechanism") is just such a term. Dictionary definitions make clear that the noun "detent" denotes a type of device with a generally understood meaning in the mechanical arts, even though the definitions are expressed in functional terms. . . . It is true that the term "detent" does not call to mind a single well-defined structure, but the same could be said of other commonplace structural terms such as "clamp" and "container." What is important is not simply that a "detent" or "detent mechanism" is defined in terms of what it does, but that the term, as the name for structure, has a reasonably well understood meaning in the art.

Id. at p. 1583.

Here, as in Cole, the drafter of claim 8 clearly was enamored of the word "means." It appears in the claim nine times, and is included with each of the following elements: (1) "scrambling means"; (2) "transmitter means"; (3) "transmitting means"; and (4) "unscrambling means."

I agree with the defendants, however, that each of the elements "scrambling means," "unscrambling means," and "transmitter means" is written in the means-plus-function format and must be construed subject to § 112, ¶ 6. "Use of the term 'means' in a claim limitation creates a presumption that section 112, paragraph 6 has been invoked, but that presumption may be rebutted if the properly construed claim limitation itself recites sufficiently definite structure to perform the claimed function." Kemco Sales, Inc. v. Control Papers Co., Inc., 208 F.3d 1352, 1361 (Fed. Cir. 2000).

Unlike Cole, there is no sufficiently definite structure described in the claim to perform

the "scrambling means," "unscrambling means," or "transmitter means," i.e., there is no structure equivalent to the "perforations" specified in the Cole claim. Nor do the terms "scrambling means," "unscrambling means," or "transmitter means" convey their functions in the way "filter," "brake," "clamp," "screwdriver," or "lock" do. See Latiram Corp. v. Rexnord, Inc., 939 F.2d 1533, 1536 (Fed. Cir. 1991)(finding that "means for joining" did not supply a sufficiently definite structure to overcome the presumption created by § 112, ¶ 6).

1. **"a scrambling means for introducing some kind of objectionable interference or distortion into the signal selectively according to one of a multiple of differing scrambling techniques"**

The first function identified in claim 9 is "a scrambling means." The specification provides:

> In the invention of this application a master programmable scrambling circuit 31 is utilized. The master programmable scrambling circuit 31 includes a number of differing coding techniques, both active and passive.

'066 Patent, col. 2, lines 37-40. In addition, the specification states that "while a single scrambling circuit 31 is disclosed, such system could include a series of interchangeable individual units--each with a single coding system." Id. at lines 60-62.

The structures identified in the specification for performing the "scrambling means" function are a master programmable scrambling circuit including a single scrambling circuit or a series of interchangeable individual scrambling circuits--each with a single coding system--using a number of different coding techniques, and a programming keyboard.

2. "a transmitter means, said transmitter means transmitting the signal from said scrambling means"

The second function identified in claim 9 is "a transmitter means." I already have found that this element is expressed in means-plus-function format and is subject to § 112, ¶ 6. The function of the "transmitter means" in claim 9 is transmitting the signal from the scrambling means to the receiver.

The structure identified in the specification for performing the "transmitting means" function is a "standard purchase item[]." '066 Patent, col. 1, lines 63-64.

3. "an unscrambling means for removing the objectionable interference or distortion from the signal by acting on the signal from said receiver"

The third function identified in claim 9 is an "unscrambling means," expressed in means-plus-function format and subject to § 112, ¶6. The function of the "unscrambling means" in claim 9 is to remove the objectionable interference or distortion from the signal by acting on the signal from said receiver.

The structures disclosed in the specification for performing this function are the decoding box 200 which includes an input connector 205 and an output connector 206, and user exchangeable cards 150 containing electronic circuits 151 with accompanying electronic contacts 152. '066 Patent, col. 3, lines 11-61, and Figs. 1-4.

B. Disputed Terms In Claim 9

1. "signal transfer device"

The plaintiff asserts that "signal transfer device" does not require construction. The defendants, by contrast, argue that the term means a device that incorporates both a transmission

circuit and a reception circuit and transfers signals there between. Joint Claim Construction Brief, Exh. B.

I agree with the defendants, based on the ordinary and customary meaning of the claim language. Claim 8 expressly claims a "signal transfer device" comprising (1) a scrambling means; (2) a transmitter transmitting the signal; (3) a receiver receiving the signal from the transmitter; and (4) an unscrambler for removing the interference or distortion from the signal. '066 Patent, col. 6, lines 30-40.

I construe the term "signal transfer device" to mean a device that incorporates both a transmission circuit and a reception circuit and involves the transfer of signals between the two.

2. "scrambling"

The plaintiff argues that "scrambling" means a modification of a signal. Joint Claim Construction Brief, Exh. B. The defendants argue that it means modifying an analog signal so as to render it unusable. Id. The dispute is over whether "scrambling" applies only to analog signals, as the defendants contend, or applies to both analog and digital signals, as the plaintiff contends.

Again, claims are to be construed in light of the specification. Vitronics, 90 F.3d at 1582. With respect to whether "scrambling" applies only to analog signals, or also to digital signals, the specification discloses the following:

> Currently, this unscrambling occurs in an expensive digitally controlled decoder such as the M/A-Com Video Cipher II or the familiar cable black box.

'066 Patent, col. 1, lines 16-19 (emphasis added).

The Declaration of Henry H. Jenkins[3] and its attachments establish that the Video Cipher II technology disclosed in the '066 Patent involved "scrambling" of both analog and digital signals. In particular, a January 1986 article in the Satellite Orbit, published prior to the filing of the '066 Patent, states:

> The VC I system is a Cadillac scrambling system that digitally encrypts the audio and video signals. CBS currently is using VC I to scramble its feed on Telstar 302, transponder 19. HBO found that the VC I system, however, was too expensive and asked M/A-Com to design a scrambling system that was more affordable. In making the new system, M/A-Com decided to use analog scrambling of video signal (a more traditional method), while digitally encrypting the audio signal. This new system was dubbed Video-cipher II.

Declaration of Henry H. Jenkins (the "Jenkins Decl."), Exhibits to Broadcast's Consolidated Brief In Opposition to Defendants' Opening Brief on Claim Construction, at Exh. A (emphasis added). Another pre-filing article attached to the Jenkins Declaration explains:

> The scrambled satellite signals in question are currently descrambled by M/A-Com Video Cipher II and Oak Orion equipment. Although industry insiders expressed little surprise that the VC II video--which is analog encrypted--was cracked, they doubted that the audio--which is digitally encrypted--would fall victim to such "low cost" alternatives as Anderson and others propose.

Id. at Exh. B (emphasis added).

One skilled in the art would understand the term "scrambling" to apply to both analog and digital signals. I reject the defendants' position that it applies only to an analog signal. I construe the term "scrambling" to mean modifying a signal so as to render it unusable until unscrambled.

[3]Mr. Jenkins is the inventor named in the '066 Patent.

3. "unscrambling"

The plaintiff argues that "unscrambling" means returning a modified signal to its previous unmodified state. Joint Claim Construction Brief, Exh. B. The defendants argue that it means restoring a scrambled signal to its original unscrambled condition. Id. If I had construed "scrambling" to be limited to an analog signal as the defendants urged, a distinction would exist between the competing proposals. In view of my construction of "scrambling" to include both analog and digital signals, however, the parties agree that "unscrambling" is simply the reversal of the scrambling process. I construe "unscrambling" to mean restoring a modified signal to its unmodified condition.

4. "introducing"

Defendant EchoStar asks that I construe "introducing"to mean adding to or superimposing upon, arguing:

> The disclosure of the '066 patent is limited to methods for scrambling analog signals, and includes only those methods for "*introducing* some kind of objectionable interference or distortion into the signal. . . ." All of the methods disclosed . . . do something that adds to or superimposes upon an analog baseband signal.

Defendant EchoStar . . . Opening Claim Construction Brief for the '066 Patent, at p.18.

I have rejected the construction that limits scrambling to analog signals. Although the particular techniques for scrambling described in the specification may be unique to scrambling analog signals, I will not improperly limit the term to an embodiment disclosed in the specification. Texas Digital, 308 F.3d at 1204 (instructing that a court should construe a claim limitation according to its ordinary and accustomed meaning and should not import a characteristic of a disclosed or preferred embodiment into the term); CCS Fitness, 288 F.3d at

1367 ("[A] patentee need not 'describe in the specification every conceivable and possible future embodiment of his invention'").

"Introducing" has an ordinary meaning and does not require construction.

5. **"objectionable interference or distortion"**

The plaintiff argues that "objectionable interference or distortion" means the modification to a signal during scrambling." Joint Claim Construction Brief, Exh. B. The defendants argue that the term means the modification to the analog signal that results in the signal being scrambled. I have rejected the construction that limits scrambling to analog signals.

I construe the term "objectionable interference or distortion" to mean the modification made to a signal during scrambling.

The DIRECTV defendants argue that the term "objectionable" is indefinite under 35 U.S.C. §112, ¶ 2. Defendant DIRECTV . . . Principal Opening Brief On Claim Construction, at pp. 60-61. According to these defendants:

> There is no standard set forth in the specification, nor test in the art, to allow one skilled in the art to determine what amount of interference or distortion is "objectionable."

Id. at 60.

"The definiteness inquiry focuses on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the rest of the specification." Union Pacific Resources Co. v. Chesapeake Energy Corp., 236 F.3d 684, 692 (Fed. Cir. 2001).

The specification of this patent provides that the "signal scrambling circuit modifies the signal in accord with predesigned parameters so as to render the signal unusable upon reception by a receiver not containing a corresponding decoding circuit." '066 Patent, co. 2, lines 9-12

(emphasis added). Consequently, one skilled in the art reading the claim in the light of the entire specification would understand that interference is "objectionable," as that term is used in claim 9, if it is of an amount sufficient to "render the signal unusable" to anyone without a decoding circuit. The term "objectionable" is not indefinite.

6. "signal"

The plaintiff asserts that "signal" does not require construction. Defendant EchoStar argues that "signal" means a television baseband video and/or audio signal. Joint Claim Construction Brief, Exh. B. The DIRECTV defendants argue that "signal" means an information service signal (e.g., a television program signal) that is directed to a user output (e.g., a television screen). Id.

I have construed "scrambling" to apply to both analog and digital signals. Consistent with that, I construe the term "signal' to include both analog and digital signals. I reject EchoStar's attempt to limit the term to an analog baseband video and/or audio signal.

The DIRECTV defendants seek to narrow the term to an information service signal that is directed to a user output. This requested construction improperly imports to the claim limitations from disclosed embodiments in the specification. For example, although the specification describes an embodiment of the invention where the end user is a consumer of a television broadcast (e.g., "the user having previously purchased the card at a local card distribution outlet," '066 Patent, col. 4, lines 25-34), the specification does not necessarily preclude use of the invention where, for example, a scrambled satellite signal is received, unscrambled, and retransmitted by cable to more than one end user. In this example, the signal is not "directed to a user output (e.g., a television screen)" as the DIRECTV defendants propose.

I reject the limited constructions of the term "signal" advanced by the defendants. I adopt the ordinary and customary meaning of the term and construe "signal" to mean an impulse by which messages or information can be transmitted. Webster's Ninth New Collegiate Dictionary, 1096 (1984).

7. **"selectively according to a particular one of a multiple of differing scrambling techniques"**

The plaintiff argues that this term means by using one of the different ways of modifying a signal. Joint Claim Construction Brief, Exh. B. EchoStar argues that it means there exist multiple, distinct predesigned scrambling techniques, which are simultaneously available for selection. Id. The DIRECTV defendants argue that it means there exist multiple distinct, pre-programmed scrambling techniques that are available and from which one can be quickly selected for use at any given time. Id. A principal issue as between the plaintiff, on the one hand, and the defendants, on the other hand, is whether "differing scrambling techniques" means a single scrambling technique having a variable parameter, as the plaintiff's construction would allow, or whether it requires separate and distinct scrambling methods which are something more than merely a variation of one technique's parameters.

I am persuaded by the defendants that the prosecution history requires that "differing scrambling techniques" means something more than a single scrambling technique where the technique's parameters are varied. In particular, during the prosecution of the patent the applicant distinguished "a single scrambling technique having a variable parameter," stating:

> In marked contrast, the invention of this present application uses one of a wide variety of totally distinct scrambling techniques.
>
> * * *

> This present invention is thus totally distinct from the teachings of the cited art wherein the parameters of a single scrambling technique are selectively altered to produce differing characteristics for the same scrambling technique.

Declaration of Jose L. Patino In Support of Defendant EchoStar . . . Opening Claim Construction Brief for U.S. Patent 4,993.066 (the "Patino Decl."), at Exh. E., p. 265. See Spectrum Int'l, 164 F.3d at 1378 ("[S]tatements made by a patent applicant during prosecution to distinguish a claimed invention over prior art may serve to narrow the scope of a claim").

This construction finds further support in the specification, where the patentee defined "[t]ypical coding techniques" to include the distinct techniques of "signal emphasis/deemphasis, voltage spikes, sync removal, or frequency shifts." '066 patent, col. 2, lines 45-47.

I construe the words "differing scrambling techniques" to mean distinct scrambling methods which are something more than merely varying one scrambling technique's parameters.

Within this term, the plaintiff contends that the words "a particular one" need no construction. The defendants contend that those words should be construed to mean one and only one. In my view, there is no meaningful distinction between the positions of the parties. One is in the singular and means one, whether it is "a particular one" or "one and only one."

The parties also disagree about whether the word "multiple" means more than one, as the plaintiff contends, or more than two, as the defendants contend. "Multiple" normally means "[h]aving, pertaining to, or consisting of more than one individual, element, part, or other component. . . ." The American Heritage Dictionary of the English Language, at p. 861. In support of their contention that "multiple" as used in claim 9 means more than two, the defendants invoke the doctrine of claim differentiation and point to the fact that claims 10 and

11, depending from claim 1, concern "more than one scrambling technique. . . ." '066 Patent, col.5, lines 20-21. The defendants argue that "when read in light of claims 10 and 11 (and their use of 'more than one' to mean 'two or more'), the doctrine of claim differentiation indicates that 'multiple' must have a different meaning than 'more than one.'" Defendant EchoStar . . . Opening Claim Construction Brief for the '066 Patent, at p. 20.

It is apparent that syntax, and not an intention to differentiate, led to the use of the differing phrases in claims 10 and 11, on the one hand, and claim 9, on the other hand. The claim language involved in claims 10 and 11 involves "the improvement of means to incorporate more than one scrambling technique. . . ." '066 Patent, col. 5, lines 19-21. The claim language in claim 9, by contrast, involves introducing interference into a signal "according to a particular one of a multiple of differing scrambling techniques. . . ." Id. at col. 6, lines 30-34. It is apparent that the claim drafter used the word "multiple" in claim 9 to avoid the awkward alternative of "one of more than one of differing scrambling techniques. . . ." See Karlin Technology Inc. v. Sugical Dynamics, Inc., 177 F.3d 968, 972 (Fed. Cir. 1999)("[T]he canon of claim differentiation is not a rigid rule"); 5A Donald S. Chism, Chism on Patents § 18.03[6][a] (1999 and July 2001 Cum. Supp.)(stating that Federal Circuit decisions "confirm that claim differentiation is not a rigid rule," citing cases).

I construe the word "multiple" in its ordinary and customary manner to mean more than one.

Defendant EchoStar requests a construction of the term to require that the scrambling techniques be simultaneously available. There is no such requirement in the claim or the specification. To the contrary, the specification states that the scrambling technique "can be

quickly selected and implemented at will," '066 Patent, col. 2, lines 41-42, not that the differing techniques be simultaneously available. I reject EchoStar's construction requiring that differing scrambling techniques be simultaneously available. In addition, although an embodiment of the invention disclosed in the specification "can be quickly selected and implemented at will," id., that is not a limitation of the claim.

I construe the term "selectively according to a particular one of a multiple of techniques" to mean by selecting a particular one of more than one distinct scrambling methods, where a scrambling method is something more than merely varying one scrambling technique's parameters.

8. "receiver"

The next disputed claim term is "receiver." The plaintiff contends that the term does not require construction. Joint Claim Construction Brief, Exh. B. Defendant EchoStar argues that "receiver" means the electronics of an integral television set that receive the signal from the transmitter means. Id. The DIRECTV defendants argue that "receiver" is a device that receives the scrambled analog signal from the transmitter means. Id.

One embodiment of the receiver is "the electronics of and the user output 140 the video screen of an integral television set," but the specification does not limit the term to this one embodiment. I therefore reject EchoStar's proposed construction, which would improperly limit the claim to a single embodiment imported from the specification. Texas Digital, 308 F.3d at 1204; CCS Fitness, 288 F.3d at 1367.

I have construed scrambling to apply to both analog and digital signals. I therefore reject the DIRECTV defendants' proposed construction that would limit the receiver to a device that

receives scrambled analog signals.

I construe the term "receiver" to have its ordinary and accustomed meaning as an apparatus for receiving television broadcasts. Webster's Ninth New Collegiate Dictionary, at p. 982.

This construction is supported by the specification, which states that "[a]s with the transmission circuit 10 certain items, namely the receiver 110, the override switch 130 and the user output 140, are standard purchase items." '066 Patent, col. 3, lines 1-3 (emphasis added).

9. "acting on the signal from said receiver"

The next disputed claim term is "acting on the signal from said receiver." The plaintiff asserts the term means modifying the signal from said receiver. Joint Claim Construction Brief, Exh. B. The defendants argue the term means processing the scrambled signal received from the receiver and restoring the scrambled signal to its unscrambled condition.

According to defendant EchoStar:

> The difference between the parties' proposed constructions is minor. Both recognize that the unscrambling process--or "acting upon" a scrambled signal--occurs on a scrambled signal *after* it has been received from the receiver.

Defendant EchoStar Opening Claim Construction Brief for the '066 Patent, at p. 23.

I have construed "unscrambling" to mean restoring a modified signal to its unmodified condition. The claim makes clear that that is the process accomplished when the unscrambling means acts on the signal. '066 Patent, col. 6, lines 38-40. Both parties agree that the signal is acted on by the unscrambling means after it is received from the receiver. Joint Claim Construction Brief, Exh. B.

I construe the term "acting on the signal from said receiver" according to the plain language of the claim to mean restoring a modified signal received from the receiver to its unmodified condition.

10. "substantially replaceable" and "differing unscrambling circuits"

The terms "substantially replaceable" and "differing unscrambling circuits" appear in claim 8 in the following context:

> [S]aid unscrambling means being substantially replaceable with differing unscrambling circuits as appropriate to unscramble the particular one of a multiple of differing scrambling techniques selected for said scrambling means. . . .

'066 Patent, col. 6, lines 40-46.

The plaintiff asserts that the terms "substantially replaceable" and "differing unscrambling circuits" do not require construction. Defendant EchoStar argues that "substantially replaceable" is indefinite under 35 U.S.C. § 112, ¶2 because it provides that some unidentified amount of circuitry or degree of functionality of the unscrambling means is replaceable. The DIRECTV defendants argue that "substantially replaceable" means a substantial part of the unscrambling means is located on a user exchangeable unscrambling card. All defendants argue that "differing unscrambling circuits" means the set of separate and distinct circuits, each of which unscrambles signals that are scrambled according to a single, matching scrambling technique.

The invention concerns a manner to inexpensively control access to a scrambled signal.' 066 Patent, Abstract. It begins with a master programmable scrambling circuit which

includes a number of differing coding techniques. Id. at col.2, lines 5, 37-47. However, as the patent notes:

> To include the wide variety of coding capabilities in the master scrambling circuit would be expensive. However, since only one master scrambling circuit is necessary per system this cost is acceptable.

Id. at col. 2, lines 55-59. In addition, the specification notes that "[i]n contrast with normal scrambling the number of differing techniques is more important to the invention than the sophistication of any particular one technique." Id. at col. 2 , lines 50-53.

The invention is made inexpensive and secure through the use of, for example, user exchangeable plastic cards, about the size of credit cards, where "each plastic card contains an electronic circuit with accompanying electronic contacts." Id. at col. 3, lines12-17. The specification explains:

> When any particular unscrambling card is inserted into the slot in the decoding box, a series of spring loaded conductive fingers make electrical connection with the series of electronic contacts on such unscrambling card. This connection has the effect of including the electronic circuit on the card into the reception circuit. . . . By merely removing one card and replacing it with another, the entire decoding characteristic of the reception circuit can be completely changed in an instant.
>
> * * *
>
> Due to the incorporation of at least some of the decoding circuitry into the card, no amount of tinkering with a decoding box would enable a user to override the scrambling. The possession of a decoding box therefor does not advantage anyone--the decoding boxes by themselves are sufficiently worthless for unscrambling a signal that such boxes could even be given away without significant risk.

Id. at col. 3, lines 36-61, and col. 4, lines 34-42.

As noted earlier, "[t]he definiteness inquiry focuses on whether those skilled in the art

would understand the scope of the claim when the claim is read in light of the rest of the specification." Union Pacific Resources, 236 F.3d at 692. As the Federal Circuit explained in Seattle Box Co., Inc. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826(Fed. Cir. 1984), a case involving whether the term "substantially equal to" was so indefinite as to render the patent invalid:

> Definiteness problems often arise when words of degree are used in a claim. That some claim language may not be precise, however, does not automatically render a claim invalid. When a word of degree is used the district court must determine whether the patent's specification provides some standard for measuring that degree. The trial court must decide, that is, whether one of ordinary skill in the art would understand what is claimed when the claim is read in light of the specification.

The thrust of EchoStar's indefiniteness argument is:

> There is no way to know whether "substantially replaceable" refers to a percentage of the amount of circuitry in the unscrambling means that is subject to replacement, or instead to either the amount or significance of the functionality being replaced. Further still, there is no guidance on what *percentage* of circuitry or degree of functionality--which ever one it is--must be subject to replacement to be within the invention.

Defendant EchoStar Opening Claim Construction Brief for the '066 Patent, at p. 24.

EchoStar's protestations notwithstanding, it is apparent that one of ordinary skill in the art would understand the term "substantially replaceable" as used in claim 8 to apply to either the amount of circuitry or its functionality, whichever technique is used to alter one user card from the others. The term merely means that when one user card is activated, that card's circuitry replaces the circuitry of any other user card for use in the unscrambling means. Only by inserting the presently activated user card into the decoding box is the unscrambling means able to

unscramble the signal. The active user card may, but need not, vary from another user card in the percentage of the circuitry on the card or merely by the functionality of the circuitry on the active user card.

Consistent with this construction of the term, I reject the DIRECTV defendants' construction that a substantial part of the unscrambling means, e.g., a substantial part of the circuitry, must be located on the user exchangeable unscrambling card.

I agree that the term "differing unscrambling circuits" requires that each user card have distinct circuitry.

I construe the terms "substantially replaceable" and "differing unscrambling circuits" to mean that the distinct circuitry of the active user card must take the place of the circuitry of any other user card for use in the unscrambling means.

11. **"as appropriate to unscramble the particular one of a multiple of differing scrambling techniques selected for said scrambling means"**

The plaintiff asserts that this term means such that the signal can be unscrambled in a way that corresponds to the way it was scrambled. Joint Claim Construction Brief, Exh. B. Defendant EchoStar argues it means an exchangeable unscrambling circuit is selected that matches a single one of the multiple scrambling techniques. Id. The DIRECTV defendants argue it means that the user must select a user exchangeable unscrambling card that unscrambles according to the single matching one of the multiple scrambling techniques. Id.

I already have construed the terms "unscrambling," see Part III.B.3; "one of a multiple of differing scrambling techniques," see Part III.B.7; "scrambling," see Part III.B.3; and "scrambling means," see Part III.B.2. No further construction is necessary.

12. **"compatible with said scrambling means"**

The plaintiff argues that no construction of the term "compatible with said scrambling techniques" is necessary. Joint Claim Construction Brief, Exh. B. Defendant EchoStar argues the term means for each scrambling technique selected, there is a single, corresponding unscrambling technique. The DIRECTV defendants argue it means for each scrambling technique, there is a particular corresponding user exchangeable card that unscrambles according to that scrambling technique.

The term appears in the following context:

> [S]aid unscrambling means being substantially replaceable with differing unscrambling circuits . . . compatible with said scrambling means to remove the objectionable interference or distortion. . . .

'066 Patent, col. 6, lines 40-47.

I agree with the defendants, and I construe the claim term "compatible with said scrambling means" to require that for each scrambling technique there is a single corresponding unscrambling technique.

This construction finds support in the specification, which provides that each user card incorporates an "electronic circuit for decoding one particular scrambled signal." '066 Patent, col. 3, lines 24-26 (emphasis added). The construction finds further support in the specification, as follows:

> [T]he master scrambling circuit 31 would be set for a particular type of coding at this same time the user would insert an unscrambling card 150 incorporating a complementary decoding circuit into the decoding box. . . .

Id. at col. 4, lines 26-29.

I reject the DIRECTV defendants' construction requiring that the single corresponding unscrambling technique be contained in or on the exchangeable unscrambling card. The specification makes clear that in certain embodiments it is the user card and the decoding box acting together which accomplish the task of unscrambling. '066 Patent, col. 4, lines 14-24 (describing that in the very complex systems "the decoding box and card would each contain various parts of sophisticated electronic circuits, all of which would be utilized in a certain arrangement to provide decoding").

13. **"said unscrambling means is substantially entirely on a user replaceable card"**

The plaintiff contends this term needs no construction. Defendant EchoStar argues that the term is indefinite under 35 U.S.C. § 112, ¶ 2 because it provides that some undefined amount of circuitry or degree of functionality of the unscrambling means is located on a card replaceable by the user. The DIRECTV defendants argue that the term means the entire unscrambling means is located on the user exchangeable unscrambling card.

As discussed in Part III.B.12 above, the specification makes clear that in certain embodiments it is the user card and the decoding box acting together which accomplish the task of unscrambling. '066 Patent, col. 4, lines 14-24. Consequently, I reject the construction proposed by the DIRECTV defendants.

Nor do I find that the term "substantially entirely" is indefinite to one skilled in the art when read in the context of the rest of the specification. The specification makes clear that in some embodiments the entire circuitry for the unscrambling circuit would be on the user card, '066 Patent, col. 3, lines 62-68, while in other embodiments the decoding box and the user card

would each contain various parts of electronic circuits which would act together to provide the unscrambling. Id. at col. 4, lines14-19. And as I previously have explained, the unscrambling means works in such a way that when one user card is activated, that card's circuitry replaces the circuitry of any other user card for use in the unscrambling means. In this context, I agree with the plaintiff that the term "substantially entirely" is not indefinite and needs no further construction.

C. **Means-Plus-Function Elements In Claims 10 and 11**

Claim 1, from which claims 10 and 11 depend, states:

> In a device incorporating a scrambling transmitter and a receiver incorporating an unscrambling circuit having key elements for secured passage of a signal, the improvement of [1] **means to incorporate more than one scrambling technique into the scrambling transmitter** and [2] **means for the selective interchange of the key elements of the unscrambling circuit** so as to allow selective reception of the signals incorporating the differing scrambling techniques.

The defendants argue that each of these elements is in a means-plus-function format and that they must be construed according to 35 U.S.C. § 112, ¶ 6. See Kemco Sales, 208 F.3d at 1361("Use of the term 'means' in a claim limitation creates a presumption that section 112, paragraph 6 has been invoked"). The plaintiff argues that § 112, ¶ 6 is inapplicable because the claims recite sufficient structure to perform the function described.

I agree with the defendants that the elements are written in means-plus-function format, and I also agree that they do not supply sufficiently definite structure to overcome the presumption created by § 112, ¶ 6.

1. "means to incorporate more than one scrambling technique into the scrambling transmitter"

The first function identified in claims 10 and 11 is a "means to incorporate more than one scrambling technique into the scrambling transmitter." The function of this element is to incorporate more than one scrambling technique into the scrambling transmitter.

The structures disclosed in the specification for performing this function are a master programmable scrambling circuit including a single scrambling circuit or a series of interchangeable scrambling circuits--each with a single coding system--using a number of different coding techniques, and a programming keyboard. '066 Patent, col. 2, lines 37-62.

2. "means for the selective interchange of the key elements of the unscrambling circuit"

The second function identified in claims 10 and 11 is "means for the selective interchange of the key elements of the unscrambling circuit." The function of this element is to selectively interchange the key elements of the unscrambling circuit.

The structures disclosed in the specification for performing this function are the decoding box 200 which includes an input connector 205 and an output connector 206, and user exchangeable cards 150 containing electronic circuits 151 with accompanying electronic contacts 152. '066 Patent, col. 3, lines 11-61, and Figs. 1-4.

D. Disputed Terms In Claims 10 and 11

1. "scrambling transmitter"

The plaintiff contends that the term "scrambling transmitter" means a transmitter that includes a scrambling circuit. Joint Claim Construction Brief, Exh. B. The defendants assert it means a transmitter that scrambles and transmits an analog signal. Id. The sole disagreement

appears to be whether "scrambling" is limited to analog signals only, a construction I already have rejected.

I construe the term "scrambling transmitter" to mean a transmitter that includes a scrambling circuit.

2. "receiver incorporating an unscrambling circuit"

I have construed "receiver" to mean an apparatus for receiving television broadcasts. Claims 10 and 11 contain the term "receiver incorporating an unscrambling circuit." I construe the term "receiver incorporating an unscrambling circuit" to mean an apparatus for receiving television broadcasts which includes a circuit that restores a modified signal to its unmodified condition.

3. "unscrambling circuit"

The plaintiffs assert that the term "unscrambling circuit" requires no further construction. Joint Claim Construction Brief, Exh. B. Defendant EchoStar argues it means a circuit that restores a scrambled analog signal to its unscrambled condition. The DIRECTV defendants argue an "unscrambling circuit" is the entire electronic circuit that restores a scrambled analog signal to its unscrambled condition.

I have construed "scrambling" to apply to both analog and digital signals. I have construed "unscrambling" to mean restoring a modified signal to its unmodified condition.

The DIRECTV defendants argue that the term should be construed to include "the *entire* circuit that unscrambles the signal . . . to clarify that the claim language itself dictates that the circuit include both 'key elements,' and perhaps other elements that do not satisfy the 'key elements' limitation." Defendant DIRECTV . . . Principal Opening Brief On Claim

Construction, at p. 57. I do not understand the plaintiff to disagree.

I construe the term "unscrambling circuit" to mean the entire circuit that restores a modified signal to its unmodified condition.

4. **"key elements"**

The term "key elements" appears in both claims 10 and 11, as follows: "The improved device of claim 1 characterized in that the **key elements** of the unscrambling circuit are on a card. . . ." '066 Reexamination Certificate, col. 1, lines 30-31 and 35-36. The plaintiff contends that the claim term does not require construction. Joint Claim Construction Brief, Exh. B. Defendant EchoStar argues that the term is indefinite under 35 U.S.C. § 112, ¶ 2 because it encompasses some undefined amount of circuitry or degree of functionality of the unscrambling circuit. Id. The DIRECTV defendants argue that "key elements" means the necessary circuitry for implementing one of a plurality of unscrambling techniques.

I dealt with this issue when I construed "substantially replaceable" and "differing unscrambling circuits" to mean that the distinct circuitry of the active user card must take the place of the circuitry of any other user card for use in the unscrambling means and that the active user card could, but need not, vary from other user cards in the percentage of circuitry on the card or the functionality of the circuitry on the active user card. No further construction of the term is necessary.

5. **"incorporate"**

The term "incorporate" is used in the following context": "means to **incorporate** more than one scrambling technique into the scrambling transmitter." '066 Patent, col. 5, lines 20-21. The plaintiff contends the term needs no construction. The defendants, on the other hand, argue

that "incorporate" as used in the claim means to put into so as to form an integral whole; integrate.

EchoStar argues:

> EchoStar and Broadcast agree that the term "incorporate" is to be given its ordinary meaning. Consistent with its overall approach, Broadcast fails to provide any plain meaning for "incorporate."

Defendant EchoStar . . . Opening Claim Construction brief for the '066 Patent, at p. 28. EchoStar then defines "incorporate" with one of the multiple definitions provided in the Oxford English Dictionary, of which I note there are seven, plus subparts. EchoStar's preferred definition is "to put into so as to form an integral whole; integrate." Another possibility, but one which EchoStar does not select, is "to embody."

I have not attempted to set forth the plain meaning of every word used in the '066 Patent. I agree with the plaintiff that the term "incorporate" requires no further construction.

6. "more than one scrambling technique"

The plaintiff construes the term to mean more than one way of modifying a signal. The defendants assert the term means at least two separate and distinct scrambling procedures, but not merely a single scrambling procedure employing variable parameters.

I dealt with this issue when I construed the term "selectively according to a particular one of a multiple of differing scrambling techniques." Consistent with my comments there, I construe "more than one scrambling technique" to mean more than one distinct scrambling method, where a scrambling method is something more than merely varying the parameters of a single scrambling technique.

7. **"selective reception of the signals incorporating the differing scrambling techniques"**

The plaintiff asserts that this term means reception of a signal modified in accordance with a scrambling technique. Joint Claim Construction Brief, Exh. B. Defendant EchoStar argues that "selective reception" means reception of a signal scrambled according to a particular one of the separate and distinct scrambling methods"; and "the signals incorporating the differing scrambling techniques" means each signal transmitted by the scrambling transmitter has a modification that is unique to one of the separate and distinct scrambling techniques." Id. The DIRECTV defendants argue that the term means each of a plurality of information service signals is scrambled according to a different scrambling technique, and the user must select a matching unscrambling card in order to receive a particular information service signal. Id.

The issue appears to be that the defendants seek to restrict the term "scrambling techniques" to one of separate and distinct scrambling techniques. The plaintiff resists the attempted restriction, arguing that "the specification of the '066 patent discloses that a combination of scrambling techniques may be used to scramble a signal." Broadcast's Opening Claim Construction Brief, at p. 33.

I agree with the plaintiff. The specification states:

> A particular technique or combination of techniques can be quickly selected and implemented at will via a programming keyboard 32. The master scrambling circuit 31 therefor is able to put out a wide variety of scrambled signals. . . . In contrast with normal scrambling the number of differing techniques is more important to the invention than the sophistication of any particular on technique.

'066 Patent, col. 2, lines 40-54.

Although I have construed differing scrambling techniques to require something more than merely varying the parameters of a single scrambling technique, the specification clearly contemplates that a distinct combination of coding techniques such as, for example, combining some form of signal emphasis with a voltage spike, would be one scrambling technique; and, for example, combining signal emphasis with a frequency shift, would be a differing scrambling technique.

I construe the term "selective reception of the signals incorporating the differing scrambling techniques" to mean reception of a signal modified in accordance with a scrambling technique.

8. "the key elements of the unscrambling circuit are on a card"

I have discussed "key elements," see Part III.D.4, and construed "unscrambling circuit." See Part III.D.3. In view of that, I agree with the plaintiff that no further construction is necessary.

9. "include the majority of the unscrambling circuit" and "include the essential portion of the unscrambling circuit"

Claim 10 states that "the key elements of the unscrambling circuit are on a card and **include the majority of the unscrambling circuit**. . . ." Claim 11 states that "the key elements of the unscrambling circuit are on a card and **include the essential portion of the unscrambling circuit**. . . ." The plaintiff contends that "majority" in claim 10 needs no construction and that "essential portion" in claim 11 means important parts. The defendants argue that the terms are indefinite under 35 U.S.C. § 112, ¶ 2.

The specification describes in detail the invention claimed, and I have summarized the relevant description in Part 3.B.10 above, where I construe "substantially replaceable" and "differing unscrambling circuits." The nub of the defendants' argument merely rehashes what has come before.

As for "majority," EchoStar argues:

> This lack of clarity is compounded by no disclosure of whether the "majority" of the unscrambling circuit refers to a measure of the physical amount of circuitry (e.g., 51%), or to that portion of the unscrambling circuit that performs the majority or most important aspects of the unscrambling function.

Defendant EchoStar . . . Opening Claim Construction Brief for the '066 Patent, at p. 31.

One of ordinary skill in the art would understand the term "the majority of the unscrambling circuit," when read in light of the rest of the specification, to include either the amount of circuitry or the portion of the circuitry that performs the majority or most important part of the unscrambling function. The point is that only by inserting the presently activated user card, with its circuitry in combination with either the contacts of the decoding box or the contacts and the circuitry of the decoding box, is the unscrambling means able to unscramble the signal.

"Majority" as used in claim 10 is not indefinite and requires no further construction.

"Essential" has an ordinary meaning of "indispensable." The American Heritage Dictionary of the English Language, at p. 448. I construe the term "essential portion of the unscrambling circuit" to mean the indispensable portion of the entire circuit that restores a modified signal to its unmodified condition.

10. "interchangeable with other cards"

The plaintiff contends that the term "interchangeable with other cards requires no construction, but if construction is necessary it offers the synonym of "exchangeable with other cards." Defendant EchoStar argues that the term means that each card implements an unscrambling technique and can be physically exchanged with other cards that implement different unscrambling techniques. The DIRECTV defendants argue for a construction that the user exchangeable card that unscrambles a signal scrambled according to a particular scrambling technique can be readily exchanged with at least one other user exchangeable card that unscramble a signal scrambled according to a separate and distinct scrambling technique.

Defendant EchoStar points to the following portion of the specification in support of its construction of the term:

> Since the scrambling circuit 31 can put out a wide variety of scrambled signals there is correspondingly a significant number of user exchangeable circuit cards 150, each card incorporating an electronic circuit 151 for decoding one particular scrambled signal.

'066 Patent, col. 3, lines 21-25. The specification also provides that "[t]he electronic circuit 151 provides the key for the unscrambling circuit 120, carefully chosen to decode a particular type of signal from the scrambling circuit 31." Id. at col. 3, lines 18-20 (emphasis added).

Thus, for a card to be exchanged it must be carefully chosen to incorporate a decoding circuit for the particular scrambled signal.

I construe the term "interchangeable with other cards" to mean that a user card that unscrambles a signal scrambled according to a particular scrambling technique can be readily

exchanged with at least one other user card that unscrambles a signal scrambled according to a matching scrambling technique.

IV. Conclusion

Consistent with the Order for a Claim Construction Procedure and Schedule and Reference entered by the district judge in this case, the parties have ten days from the date of this order to file objections.

SO ORDERED.

Dated January 6, 2003.

BY THE COURT:

Roger N. Balanc

United States Magistrate Judge

UNITED STATES MAGISTRATE JUDGE
UNITED STATES DISTRICT COURT

BOYD N. BOLAND
U.S. Magistrate Judge

CERTIFICATE OF MAILING
Civil Action No. 01-WY-2201-AJ (BNB)

I hereby certify that a copy of this **ORDER** dated January 6, 2003, entered by Magistrate Judge B.N. Boland was served by (*) delivery to or (**) depositing the same in the United States mail, postage prepaid, this 6 day of January, 2003, to the following persons:

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Tab E

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF COLORADO

FILED
UNITED STATES DISTRICT COURT
DENVER, COLORADO

SEP 04 2003

GREGORY C. LANGHAM
CLERK

Civil Action No. 01-WY-2201-AJ (BNB)

BROADCAST INNOVATION, L.L.C,

Plaintiff,

vs.

ECHOSTAR COMMUNICATIONS CORPORATION,

Defendant.

ORDER ON APPEAL OF MAGISTRATE'S CLAIM CONSTRUCTION OF THE '094 PATENT

This is a patent infringement case brought by Broadcast Innovation, L.L.C. ("Broadcast"), asserting that the defendant infringes two separate U.S. patents– Patent No. 6,076,094 (the " '094 patent") and Patent No. 4,993,066 (the " '066 patent"). The patents claim inventions relating to broadcasting data to a television set using a carrier signal (the '094 patent), and a method for television scrambling (the '066 patent).

The plaintiff claims infringement of claims 8, 15, 22 and 29 of the '094 patent, and infringement of claim 11 of the '066 patent. The issue now before the Court is both parties' appeals from Magistrate Boland's Order on Issues of Claim Construction (Docket No. 224) issued on January 6, 2003. The Court held a day-long hearing regarding the appeals on May

29, 2003.

STANDARD OF REVIEW

Pursuant to Rule 72(a), regarding objections to a magistrate's ruling on non-dispositive motions, "the district judge to whom the case is assigned shall consider such objections and shall modify or set aside any portion of the magistrate judge's order found to be clearly erroneous or contrary to law." Under this standard, the reviewing court may sustain objections if, "on the entire evidence," it "is left with the definite and firm conviction that a mistake has been committed." *Ocelot Oil Corp. v. Sparrow Indus.*, 847 F.2d 1458, 1464 (10th Cir. 1988). However, under Rule 72(b) a district judge reviews a magistrate's recommended disposition regarding a dispositive motion *de novo*. The Court recognizes that a claim construction is not a dispositive motion. However, claim construction is the legal conclusion about the patent claims that provides the underpinnings and basis for summary judgment. Furthermore, the matter of claim construction is a matter of law and is subject to *de novo* review by the Federal Circuit. *See, e.g., Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1454-55 (Fed. Cir. 1998). Since the claim construction will provide the basis for the summary judgment motions and the claim construction order will be reviewed *de novo* by the Federal Circuit, this Court will review Magistrate Judge Boland's Claim Construction Order *de novo*.

LEGAL STANDARD

A literal patent infringement analysis involves the following two steps: the proper

construction of the asserted claim and a determination as to whether the accused method or product infringes the asserted claim as properly construed. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-82 (Fed. Cir. 1996). Claim construction is a matter of law for the Court. *Id.* at 1582. In interpreting an asserted claim, the Court should look first to the intrinsic evidence of the record, meaning the patent itself, including the claims and specification and, if in evidence, the prosecution history. *Id.* at 1582. However, it is "entirely appropriate, perhaps even preferable, for a [C]ourt to consult trustworthy extrinsic evidence" to ensure that its claim construction is consistent with the understanding of the claim terms in the pertinent technical field. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed. Cir. 1999).

The Court first looks to the words of the claims to define the scope of the patented invention. In construing claims, the analytical focus is on the language of the claims themselves because "it is that language that the patentee chose to use to `particularly point out and distinctly claim the subject matter which the patentee regards as his invention.' " *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1201-02 (Fed. Cir. 2002) (quoting *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001), and 35 U.S.C. § 112). There is a "heavy presumption" that the claim terms carry the ordinary and customary meaning that would be attributed to them by one skilled in the relevant art. *Texas Digital Syss., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002); *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir.

1999). In addition, dictionaries, encyclopedias, and treatises are particularly useful resources to assist in determining the ordinary and customary meanings of claim terms. *Texas Digital*, 308 F.3d at 1202.[1] The Court may consult treatises and dictionaries to understand the underlying technology. *Vitronics Corp.*, 90 F.3d at 1584 & n.6. Similarly, for non-technical terms, the Court may consult a general-purpose dictionary for guidance. *MSM Investments Co. v. Carolwood Corp.*, 259 F.3d 1335, 1339 (Fed. Cir. 2001). Although words in a claim are generally given their ordinary and customary meaning, a

[1]As the Court of Appeals for the Federal Circuit recently stated:

> Dictionaries are always available to the court to aid in the task of determining meanings that would have been attributed by those of skill in the relevant art to any disputed terms used by the inventor in the claims.
>
> When a patent is granted, prosecution is concluded, the intrinsic record is fixed, and the public is placed on notice of its allowed claims. Dictionaries, encyclopedias and treatises, publicly available at the time the patent is issued, are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art. Such references are unbiased reflections of common understanding not influenced by expert testimony or events subsequent to the fixing of the intrinsic record by the grant of the patent, not colored by the motives of the parties, and not inspired by litigation.
>
> * * *
>
> As resources and references to inform and aid courts and judges in the understanding of technology and terminology, it is entirely proper for both trial and appellate judges to consult these materials at any stage of a litigation, regardless of whether they have been offered by a party in evidence or not. Thus, categorizing them as "extrinsic evidence" or even a "special form of extrinsic evidence" is misplaced and does not inform the analysis.

Id. at 1202-03 (internal citations omitted).

patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history. *Vitronics Corp.*, 90 F.3d at 1582.

Claims must be understood in light of the specification. *Markman v. Westview Instr., Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995). Thus, the Court must review the specification to determine whether the inventor used any terms in a manner inconsistent with their ordinary meaning. *Vitronics Corp.*, 90 F.3d at 1582. Moreover, claims cannot be construed to cover what is disclaimed in the specification. *Cultor Corp. v. A.E. Staley Mfg. Co.*, 224 F.3d 1328, 1331 (Fed. Cir. 2000).

In addition, the prosecution history, if in evidence, may be considered by the Court. *Vitronics Corp.*, 90 F.3d at 1582. The prosecution history "limits the interpretation of the claim terms so as to exclude any interpretation that was disclaimed during prosecution." *Markman*, 52 F.3d at 980.

In contrast to intrinsic evidence, "extrinsic evidence is that evidence which is external to the patent and file history, such as expert testimony [or] inventor testimony." *Vitronics Corp.*, 90 F.3d at 1584. Extrinsic evidence may properly be consulted when, after considering the intrinsic evidence, there remains an ambiguity in the meaning of the claim language. *Phillips Petroleum Co. v. Huntsman Polymers Com.*, 157 F.3d 866, 870 (Fed. Cir. 1998). The Court may consider extrinsic evidence "for background and education on the technology" so that the Court can discern the proper understanding of

the claims. *Key Pharm. V. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1999). However, if the meaning of the claim limitations is apparent from the totality of the intrinsic evidence, then the claim has been construed, and "it is improper to rely on extrinsic evidence" to interpret the claim. *Vitronics Corp.*, 90 F.3d at 1583.

A patentee need not describe in the specification "every conceivable and possible future embodiment of his invention." *CCS Fitness*, 288 F.3d at 1366. In addition, it is improper to limit the scope of a claim to the preferred embodiment or specific examples disclosed in the specification. *Ekchiam v. Home Depot. Inc.*, 104 F.3d 1299, 1303 (Fed. Cir. 1997). However, a claim "may not be construed [by the patentee] one way in order to obtain allowance and in a different way against accused infringers." *Spectrum Int'l v. Sterlite Corp.*, 164 F.3d 1372, 1379 (Fed. Cir. 1998)(internal citations omitted).

BACKGROUND

The '094 Patent discloses that its object is to "provide a system by which a database can be distributed from a central station with thematically linked data to one or more users at remote locations and where the user can automatically group the received data for interpretation according to the demands of the user in an efficient and fast manner compared with prior art systems. . . ." '094 Patent, col. 1, ll. 32-38. The data is broadcast using a carrier signal such as a television or commercial radio carrier signal. '094 Patent, at Abstract.

The '094 patent builds on a system known as Teletext. '094 Patent, col. 1, ll. 17-

18. According to the description of the background art:

> The teletext system utilizes the vertical blanking interval (VBI) of a television transmission for the purpose of broadcasting predetermined blocks of text material. The blocks of text are organized as pages where each page provides one screen of text material. The text format for each page is fixed as are the total number of pages of text material. The pages are broadcast repeatedly consecutively. Noted defects of this kind of system include the rigidity of the text in its page format and also the significant delays that can be encountered whilst a user waits for a requested page to come around to its time for re-transmission.

'094 Patent, at ll. 17-29.

The inventors described the improvements of their invention over the known art as follows:

> It should be appreciated that the present invention described with respect to the first embodiment has many advantages over previous distributed database systems such as Videotex and Teletext. Moreover, the particular concept of using a data record as the basic logic unit rather than a fully formatted page, as is the case with Teletext provides for more records to be transmitted more quickly. This is especially useful if the records are small such as in small advertisements.
>
> Furthermore, the particular method of processing the received information and determining storage before displaying the same and the methodology of searching and displaying selected records instead of complete pages, overcomes the many limitations of Teletext. Accordingly in the present system, the majority of data which is transmitted are actual displayable records, whereas this is not the case in Teletext.

'094 Patent, at col. 9, ll. 43-59.

Broadcast has asserted infringement of claims 8, 15, 22, and 29 of the '094 Patent. Claims 8 and 29 cover a method and apparatus for broadcasting data; claims 15 and 22 are directed to a method and apparatus for receiving data that has been

broadcast. The claims at issue are set out below, with the disputed terms highlighted:

Claim 8:

8. In a method for **broadcasting data to a television set using a carrier signal such as a television or commercial radio carrier signal**, the improvement comprising:

constructing a data stream from the **records** of a transmission database; and

the database having individual first records, each first record comprising **one of a selection of formats**, at least one of the first records comprising executable program code or an object; **broadcasting the data stream within the carrier signal.**

Claim 15:

15. In a method for **receiving data for a television display using a carrier signal such as a television or commercial radio carrier signal**, the improvement comprising:

receiving a carrier signal and from it decoding a data stream to a user's database, the user's database comprising individual **records** comprising **records recovered from the data stream**, the individual records comprising one of a selection of formats and at least one record comprising executable program code or an object broadcast from the first records;

determining the format an individual record using a control program;

running, when required, the executable program code; and

generating a display on the television consistent with the format determined by the control program.

Claim 22:

22. In a communications device such as a personal computer or television or set top box adapted to receive **a data stream broadcast over a carrier signal**, such as a television or radio carrier signal, the improvement comprising:

a receiver for receiving broadcast database records;

a **decoder** and processor for extracting individual data records from the data stream to a user's database, the user's database comprising individual use records comprising at least some **records recovered from the broadcast database records:**

the user records recovered from the broadcast database records comprising one of a selection of formats and at least one record comprising executable program code or an object broadcast from the first records;

a control program for determining the format a user record;

A processor for running, when required, the executable program code; and

a display generator for creating a display consistent with the format determined by the control program.

Claim 29:

29. In a device for broadcasting a carrier signal such as a television or commercial radio **carrier signal** to a user, the improvement comprising:

a computer having a transmission database;

the database having individual first records, each first record comprising one of a selection of formats, at least one of the first records comprising executable program code or an object;

an encoder for creating a packet based data stream constructed at least in part from the first records;

an inserter for inserting the data stream into another signal

DISCUSSION

A. Indefiniteness

Defendant contends that Magistrate Judge Boland's failure to find the '094 patent invalid due to indefiniteness was incorrect. Defendant argues that each of the four claims of the '094 patent is invalid as indefinite because each claim contains an exemplary phrase in its preamble. *See Ex parte Steigerwald*, 131 USPQ 74 (Pat. & Tr. Office Bd. App. 1961).

The statutory "definiteness" requirement provides that a specification "shall

conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, ¶ 2. "Distinctly" means that the claim must have a clear and definite meaning in light of the disclosure provided in the patent. *Miles Labs., Inc. v. Shandon, Inc.*, 997 F.2d 870, 874-75 (Fed. Cir. 1993). The test for whether a claim meets the definiteness requirement is "whether one skilled in the art would understand the bounds of the claim when read in light of the specification." *Personalized Media Comms., L.L.C. v. Int'l Trade Comm'n*, 161 F.3d 696, 705 (Fed. Cir. 1998). However, "[i]f the meaning is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds." *Exxon Research and Eng'g co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). "By finding claims indefinite only if reasonable efforts at claim construction prove futile, [the Courts] accord respect to statutory presumption of patent validity, and [the Courts] protect the inventive contributions of patentees, even when the drafting of their patents has been less than ideal." *Id.*

The asserted claims of the '094 patent each recite the broadcasting or receiving of data within a "carrier signal," immediately followed by the language "such as a television or commercial[2] radio carrier signal."[3] The Federal Circuit has recently reviewed a claim

[2] The word "commercial" was not included in this phrase in claim 22.

[3] These phrases are: (1) "data stream broadcast over a carrier signal, **such as a** television or radio carrier signal," (claim 22); and (2) "broadcasting a carrier signal **such**

construction of the phrase "located at predesignated sites such as consumer stores." In refusing to invalidate the claim, the Federal Circuit stated: "The district court correctly found that the term 'such as' means 'of a kind or character about to be indicated, suggested or exemplified; for instance.' . . . 'Such as' introduces an example of a broader genus rather than limiting the genus to the exemplary species." *Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 811 (Fed. Cir. 2002). Similarly and correctly, Magistrate Boland construed "such as" to mean "of a kind or character about to be indicated, suggested, or exemplified; for instance." Order at 9. Defendant presents no evidence that the phrase "a carrier signal such as a television or commercial radio carrier signal"as used in the '094 patent, would not be readily understood to mean "a carrier signal of the kind or character used in connection with the broadcast of television or commercial radio signals." Thus, the Magistrate properly concluded that the term "such as" did not render the patent invalid due to indefiniteness and properly construed the term.[4]

B. Disputed Terms

There are five groups of terms from which the parties appeal the Magistrate's

as a television or commercial radio carrier signal" (claim 29).

[4] Defendants cite the U.S. Patent & Trademark Office's Manual of Patent Examining Procedures (the "MPEP") and two Board of Patent Appeals decisions. However, these sources only provide opinions on the preferred methods of claim drafting and they do not address the issue of exemplary claim language as applied to patents that have already issued.

construction.

1. "broadcasting [or receiving] data . . . using a carrier signal such as a television or commercial radio signal"

Magistrate Boland construed the terms "broadcasting data . . . using a carrier signal such as a television or commercial radio carrier signal" to mean "transmitting data by means of a signal modulated to carry data." Order at 13. The parties dispute the meaning of the term "carrier signal." Plaintiff proposed the construction that the term means "a signal modulated to carry data." (JCC Br., Ex. A.) In contrast, defendant argues that "carrier signal" should be limited to an analog baseband TV signal or main or secondary channel of an AM or FM radio signal. (JCC Br., Ex. A.) At the *Markman* hearing with Magistrate Boland, the parties conceded that there are two carrier signals: (1) the low frequency baseband signal, and (2) the higher frequency wave that broadcasts the television signal through the atmosphere to distant locations. Order at 11. Magistrate Boland found that "carrier signal" applies to the second type of carrier signal.

"Carrier signal" does not appear to have an ordinary meaning. Although Magistrate Boland found a plain meaning using a dictionary, the Court finds that this is a technical term in the industry. According to the technical dictionary provided by plaintiff, a "carrier signal" is "a continuous radiant wave which can be modulated to add information to the wave." *The Data & Telecommunications Dictionary* 131 (1999) (Pl.'s Ex. E.) In contrast, defendant provides a reference that sets forth a definition that conflicts with plaintiff's proposed definition. According to *Broadcast Data Systems:*

Teletext and RDS:

> The teletext data signal parameters were chosen and specified so that the data could be inserted in the field blanking interval of the normal television signal without disturbing the normal vision and sound signals. The video signal can therefore be considered as a common carrier for the data signal.

Peter L. Mothersole & Nomral W. White, *Broadcast Data Systems: Teletext and RDS* 62 (Butterworths & Co. Ltd., 1990). Due to the conflicting definitions provided by the parties, the Court finds that the term does not contain an ordinary meaning attributed to one of skill in the art. Thus, the Court shall turn to the extrinsic evidence.

According to plaintiff's expert, "It is well understood in the communications industry that a 'carrier signal' is a signal modulated to carry information. Carrier signals are powerful enough to be transmitted over great distances thereby 'carrying' the data which is modulated onto the carrier signal." (Snell Decl. ¶ 8, Pl.'s Ex. D.) In contrast, defendant's expert asserts that the phrases at issue would be understood by one skilled in the art of databroadcasting to mean: "use of an analog television baseband video signal or AM or FM commercial radio signal as a medium for the data. . . . [T]he television signal acts as the carrier of the VBI data, which is embedded in it, and this combined signal is transmitted on the appropriate, modulated RF wave." (Castell Decl. ¶ 34.) The conflicting opinions regarding the ordinary meaning to one of skill in the art further demonstrate the ambiguity in the term.

Thus, the Court must look to the specification to determine if either of the constructions proffered by the parties contradict the claims or specification. Defendant

contends that the preferred embodiment of the specification teaches inserting the data into the VBI of a video signal. '094 Patent, col. 15, ll. 35-39. However, the patent discusses that the television signal (including the data) modulates the carrier signal for transmission. Snell Decl. ¶¶ 8-11. Thus, the video signal is then modulated on to an RF wave to be transmitted over the airwaves. '094 Patent, col. 4, ll. 30-42; (Snell Decl. ¶¶ 8-10, Pl.'s Ex. D.) The inventors distinguish between a television signal and the carrier signal on which the television signal is transmitted. Snell Decl. ¶ 11. Video signal is then modulated on to an RF wave to be transmitted over the airwaves. '094 Patent, col. 4, ll. 30-42; (Snell Decl. ¶¶ 8-10, Pl.'s Ex. D.)

In its argument, the defendant errs in equating the analog video signal in the preferred embodiment with a carrier signal capable of being transmitted over great distances. Simply because the preferred embodiment involves inserting the data in a video signal, does not mean that the video signal is the data carrier. In the preferred embodiment, the video signal houses the data, but the carrier signal transports the video signal and the data.[5] A carrier signal is necessary to transport the video signal and the data. *See SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 169 F. Supp. 2d 492, 497-99 (W.D.N.C. 2001) ("[A] baseband video signal [] cannot be transmitted for any significant

[5] Carrier signals are powerful enough to be transmitted over great distances, thereby "carrying" the data which is modulated onto the carrier signal. Snell ¶ 8. The parties do not dispute that the low frequency baseband television signal cannot broadcast signals to distant locations.

distance. Therefore, the baseband video signal is superimposed, or modulated, onto a carrier wave.").

Furthermore, plaintiff contends that defendant's proposed construction is contrary to the specification. The specification discloses a full field data broadcast. The patent specifically states: "the database receiver is designed to have the ability to draw information from a number of carrier VBIs or from a full field data broadcast." '094 Patent, col. 11, ll. 35. In a full field data broadcast, data is modulated directly on a "carrier signal" without initial insertion in a video signal. (Snell Decl. ¶ 11, Pl.'s Ex. D.) Since defendant's proposed construction does not include this embodiment, it cannot be adopted by the Court.

Thus, Magistrate Boland is correct in his conclusion that when the inventors meant to describe the baseband television signal, into which the data is inserted, they used the term "television broadcast signal," but when they meant to describe the modulated RF signal used to broadcast the data through the atmosphere, they used the term "carrier signal such as a television or commercial signal." Moreover the patent clearly does not limit the term "carrier signal" to a radio frequency signal. The specification provides that "the TV broadcast signal can be delivered by any one of a number of known methods including VHF/UHF transmission[,] microwave transmission, satellite transmission, fibre optic transmission." '094 Patent, col. 15, ll. 50-54.

2. **"to a television set"**

Plaintiff objects to the Magistrate's construction asserting that he improperly limited the claim scope not only to deviate from the ordinary meaning, but also to exclude an example disclosed in the patent. Employing the doctrine of claim differentiation, the Magistrate construed the term "to a television set" as used in claim 8 to mean "directly to a television set and not to any component residing outside of a television set." Order at 16. Plaintiff contends that the term as used in claim 8 means "to a television set or a receiver for a television set." (JCC Br., Ex. A.) The defendant, by contrast, argues that the term means that "the broadcast must be directly to a television set and not to any component residing outside of a television set." *Id.*

This Court agrees with defendants' contention that the method of claim 8, "by its own words ("to a television set") is specifically limited to broadcasting to a television set in particular." (Def.'s Mot. at 19.) The term should not be construed so broadly to include other components residing outside of the television set, which are elsewhere disclosed as a claim in the '094 patent. The Magistrate properly utilized the doctrine of claim differentiation to reach this construction. "The doctrine of claim differentiation provides that when a limitation is included in several claims but stated in terms apparently different in scope, 'there is presumed to be a difference in meaning and scope' " Order at 15; *see Tandon Corp. v. U.S. Int'l Trade Comm.*, 831 F.2d 1017, 1023 (Fed. Cir. 1987). This presumption can be overcome by "clear and persuasive evidence." *Modine Mfg. Co. v. United States Int'l Trad Comm'n*, 75 F.3d 1545, 1551 (Fed. Cir. 1996). The

Court agrees that when the applicant intended to include broadcasting to other devices first and then displaying on a TV set, the applicant used terms other than "television set."[6] Claim 8 limits a broadcast "to a television set." However, claim 22 involves the receipt of broadcast data by "a communication device such as a personal computer or television or set top box adapted to receive a data stream," and claim 29 concerns the broadcast of a carrier signal to "a user."

Plaintiff provides absolutely no evidence that the ordinary meaning of the term "to a television set" at the time the patent was drafted or issued included the language "or a receiver for a television set." Moreover, the plaintiff does not present any evidence to rebut the presumption that the use of different language in claim 8, regarding broadcasting "to a television set," was not intended to be different in substance and scope than the terminology used in claims 22 and 29. Thus, the Court concludes that

[6] '094 Patent, col. 14, ll. 16-24 ("The System of FIG. 6 additionally includes a cordless telephone assembly 150, the handset portion 151 of which includes approximately 8 extra function buttons 156. The multimedia display processor 115 is built into the base station 152 of the cordless telephone assembly 150 (which becomes a "set top box" 155) and is connected to the television set 153 by SCART or composite video connector 154."); col. 14, ll. 34-37 ("In an alternative implementation the display processor 115 is located in its own set top box 155 connected to the television set 153 by a SCART or composite video connector 154."); col. 15, ll. 19-21 ("When the multimedia display processor 15 is housed in a set top box 155, it will connect to the television set 15.3 by a SCART connector.").

Where the inventors meant to be expansive in describing various receptors of a broadcast, they used expansive language, such as receipt by "a personal computer or television or set top box," or receipt by a user. Col. 23, ll. 17-19; col. 24, ll. 14-15. Order at 15.

Magistrate's construction was not unduly narrow.

3. "constructing a data stream"

The plaintiff asserts that the term as used in claim 8 means creating a series of information. (JCC Br., Ex. A.) The defendant contends that the term means extracting records from the transmission database and forming a single, serial signal. (JCC Br., Ex. A.) The Magistrate construed the term "constructing a data stream" "to mean creating a series of information elements." Order at 12-13.

Defendant contends that Magistrate Boland's construction of the term "constructing a data stream" "to mean creating a series of information elements" is in error because nowhere in the patent does it describe how the invention might operate with other than a serial, single data stream, nor does it suggest such a thing. (Def.'s Obj. at 6.)

Claim 8 of the '094 patent provides in relevant part:

> In a method for broadcasting data to a television using a carrier signal such as a television or commercial radio carrier signal, the improvement comprising:
> constructing a data stream from the records of a transmission database . . .

'094 Patent, col. 22, ll. 21-25.

There is a "heavy presumption" that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick, Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). Dictionary definitions may establish a claim term's ordinary meaning. *Id.* An accused infringer may overcome this "heavy presumption" and narrow a claim term's meaning in one of the following three ways: (1) if the patentee acted as his own

lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history; (2) a claim term will not carry its ordinary meaning if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment; (3) "if the term 'chosen by the patentee so deprive[s] the claim of clarity' as to require resort to the other intrinsic evidence for a definite meaning. *Id.* at 1366-67. Moreover, a patentee is not required to describe the specification in "every conceivable and possible future embodiment of his invention." *Id.* at 1366. The Magistrate determined that ordinary meaning of "data stream" is a "sequence of data elements." *The Dictionary of Computing* 127 (4th ed. 1996).

Defendant fails to overcome this heavy presumption. An alleged infringer cannot narrow a claim term's ordinary meaning by pointing to the preferred embodiment or other structures or steps disclosed in the prosecution history. *CCS Fitness*, 288 F.3d at 1366; *Johnson Worldwide*, 175 F.3d at 989-90. Defendant points to various descriptions in the specification to supports its claim. '094 Patent, col. 4, ll. 13-26; ll. 14-18; ll. 39-40; col. 5, ll. 43-44. The Court recognizes that the specifications repeatedly refer to a single data stream. However, none of the citations provided by defendant show that the claims or embodiments are limited to a single data stream. Moreover, defendant has overlooked a feature of the preferred embodiment. According to the '094 specification: "In one example of such an implementation [of the preferred embodiment], initially two data streams will be broadcast from the central station." '094 Patent, col. 10, ll. 20-21. Since

it is improper to construe a claim so that the specification or preferred embodiment are excluded, the Magistrates construction of "constructing a data stream" as "a sequence of data elements" was correct.

4. **"records"**[7]

Defendant asserts that Magistrate Boland's construction of "records" is improper because he relied on the incorrect assumption that a displayable record could not include non-displayable information. Plaintiff claims that the term "records" means entries in a database. (JCC Br., Ex. A.) Defendant argue that "records" as used in the patent, are complete units of related data intended for display on a television screen. (JCC Br., Ex. A.) As Magistrate Boland articulated, the issue is whether all "records" must be "displayable records." Order at 19. Magistrate Boland agreed with plaintiff that "records" are distinct from "displayable records"and that the term "records" as used in the claims are not required to be displayable. Order at 19.

Record contains an ordinary meaning. It is defined as "an item in a database." *The Illustrated Dictionary of Computer Dictionary* 245 (3d ed. 1986), (Pl.'s Ex I.). Again, defendant has not overcome the heavy presumption that the term carries its ordinary meaning. Defendant contends that the '094 Patent describes a record intended

[7] The term "records" appears in each of the four claims at issue. Claim 8 provides that the improvement of the patent involves "constructing a data stream from the records of a transmission database . . . [with] at least one of the first records comprising executable program code or an object." The last provision: "at least one of the first records comprising executable program code" appears in each of the four claims at issue.

for display may or may not also include other non-displayable data, such as executable code. Because the claim uses the open phrase "comprising" a record that must include displayable information may also include non-displayable information. *See Amgen v. Hoechst*, at *81-82. (noting that "comprising" is open language that means the listed element is required, but the claim may also include other elements).

The '094 Patent teaches that each logical element of information that is broadcast is called a data entry and the patent equates the term "record" with the phrase "database data entry." '094 Patent, col. 8, ll. 4-10, (Pl.'s Opening Br. at 21.) There is no dispute among the parties that the specification makes clear that data may be of at least two types– displayable data intended for display and executable code which is not intended for display. Order at 19 (citing '094 Patent, col. 13, ll. 29-38).

The claim language itself explains that "records" are not limited to displayable data. (Claim 8) ("At least one of the first records comprising executable program code or an object."). The patent explains that executable program code is non-displayable. ("Broadly the data may be of a displayable nature intended for display and which is termed displayable data in this specification. Alternatively the data may be in the nature of executable code which can, for example, be directly executable by the data manipulator/CPU.") (col. 13, ll. 29-33).

Moreover, the patent does not limit "records" to displayable data. '094 Patent, col. 4, ll. 29 ("store data in form of digital records to form the database"); col. 5, l. 8 ("no

assumptions are made about the nature of the information to be distributed"); col.9, l. 46 ("concept of using a data record as the basic logic unit rather than a fully formatted page"); col. 9, l. 56 ("Accordingly in the present system, the majority of data which is transmitted are actually displayable records."). Moreover, the patent describes several types of non-displayable data that are transmitted as records such as executable program code, executable data, subscription control data, index data, and data which is not destined for the multimedia display processor. (col. 13, ll. 48-58; col. 8, ll. 11-42; col. 13, ll. 62-65). In fact, the data stream of the preferred embodiment also contemplates non-displayable records including: (1) executable program code or data that may be used to facilitate the display of the displayable records (col. 13, ll. 29-39; (2) subscription control data that is used to ensure that only authorized subscribers have access to the video (col. 13, ll. 48-58); and (3) index data that is used to organize the records stored in the receiver's database (col. 8, ll. 11-42). One of ordinary skill in the art understands that no distinction exists between "database data" and "records." (Snell. Decl. at ¶ 13-14).

As Magistrate Boland correctly noted, the patent repeatedly uses "displayable records" to distinguish from other types of records; the terms are not used interchangeably as defendant argue. As Magistrate Boland noted, the specification uses the term "records" more broadly to include displayable and non-displayable records, as follows: "The central station 11 for the purposes of datacasting generally comprises a data store in the form of a computer file server 17 which is adapted to accumulate and store data in the

form of digital records to form the database." (Col. 4; ll. 26-29.) Moreover, the finding that "displayable records" are a subset of "records" is further supported by the language in the specification that states "the majority," but not all, "of the data which is transmitted are actually displayable records." (Col. 9, ll. 56-59.); *see Johnson Worldwide*, 175 F.3d at 989 ("General descriptive terms will ordinarily be given their full meaning; modifiers will not be added to broad terms standing alone.").

The Defendant's definition is so restrictive that it contradicts the ordinary meaning of the term, but also the definitions and examples provided in the specification. The patent provides no support for the contention there is a requirement that a record be intended for display on a television screen. (Pl.'s Br. at 21) The specification discloses that some records may be executable program code that are not themselves intended for display, but rather to assist in displaying other records. '094 Patent, col. 13, ll. 31-38, 59-62. Since defendant has not overcome the heavy presumption that a claim term carries its ordinary meaning, the Court agrees with the Magistrate's construction that "records" means an item in a database.

5. "inserter" and "decoder"

Plaintiff Broadcast contends that Magistrate Boland erred in the construction of these terms because he failed to determine their common and ordinary meaning and he improperly imparted limitations from statements regarding a preferred embodiment in the specifications. Magistrate Boland adopted defendant's proposed construction and

construed the term "inserter" to mean "a device for embedding data into the vertical blanking interval of a television video signal." Order at 27. He construed the term "decoder" to mean "a device for extracting data embedded into the vertical blanking interval of a television video signal or commercial radio signal." Order at 27. The plaintiff asserts that an "inserter" as used in claim 29 of the patent is an inserter for placing information into or on a signal and that a "decoder" as used in claim 22 needs no construction. (JCC Br., Ex. A.)

As Magistrate Boland noted, the parties agree that "inserter" is a term of art in the data broadcasting industry.[8] The ordinary and accustomed meaning governs unless (1) there is no ordinary meaning; or (2) the patentee clearly sets forth explicit definitions of the terms in the specification. *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999). Here, the parties presented conflicting "ordinary meanings" of the terms; thus, the Court concludes that the terms as understood by persons of skill in the art are ambiguous.[9]

[8] (Pl.'s Opening CC Br. at 22) ("The claimed 'inserter' is a common device in the industry."); (Def.'s Joint Opening CC Br. at 33-34.) ("The term[] 'inserter' . . . [is a term] of art in the data broadcasting industry.").

[9] Defendant's data broadcasting expert explained that as a term of art the device known as an inserter has a particular meaning, which is a device for embedding data into the vertical blanking interval (VBI) lines of an analog baseband television video signal. (Castell Decl., ¶ 41.) His testimony was independently verified by a data broadcasting publication from the time of the '094 Patent. Peter L. Mothersole & Norman W. White, *Broadcast Data Systems: Teletext and RDS* 40 (Butterworths & Co., Ltd. 1990).

Plaintiff's expert testified that the common and ordinary meaning of inserter is "an inserter for placing information into or on a signal." (Snell Decl. at 18.) The common

Consequently, the Magistrate properly turned to the specification to construe the terms. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).[10] When a patentee acts as its own lexicographer, the term is limited to the definition provided. *See Bell Atl. Network Servs., Inc. v. Covad Comms. Gr., Inc.*, 262 F.3d 1258, 1268 (Fed. Cir. 2001). The specification describes the "inserter" as follows: "This data stream is inserted into the vertical blanking interval (VBI) of the television broadcast signal transmitted from the central station. . ." and "[i]mportantly, the inserter is adapted to insert this data stream into the VBI of the broadcast television signal." '094 patent, col. 4, ll. 13-22, 30-42.[11] Since the only references to the word "inserter" expressly state

and ordinary meaning of decoder is "a device that reverses the process of encoding or translating coded information. (Snell Decl. at 17.)

[10] The *Vitronics* Court stated:

> The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication The specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make use of it. Thus, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.

Vitronics, Corp., 90 F.3d at 1582.

[11] The specification describes the "inserter" as follows:

> The datacast network utilizes television signals to convey digital information for text display at the receiver stations. In this respect, the central station 11 generates a stream of data which is encoded into datacast packets as defined by the World Standard Teletext specifications and know [sic] as Packet 31 data. This data stream is inserted into the vertical blanking interval (VBI) of the television broadcast signal transmitted from the central station 11 and is subsequently broadcast over the ether to be

that the inserter is a device for inserting into the VBI, the Magistrate correctly noted that no other function is assigned to the inserter, and no other definition is provided by the patentee and properly concluded that the specification uses the term "inserter" to describe a device that inserts data into the VBI of a television video signal. Order at 27. As a result of the inventors acting as their own lexicographers and specifically defining "inserter" as limited to a device involving the VBI of a television signal, the Court finds that the Magistrate adopted the correct construction. Furthermore, in light of the specification regarding "decoder," Magistrate Boland provided the proper construction.[12]

The Court is not persuaded by plaintiff's contention that Magistrate Boland's construction renders Claims 22 and 29 inoperable because a commercial radio signal does

> received by the receiver stations 13 at which are located display screens 15, such as television receiver sets or video monitors
> * * *
> The file server 17 is connected to a processing means in the form of a data broadcast inserter. The inserter 19 is adapted to extract digital records in the form of database data from the file server 17 and generate a sequential data stream from this database data for distribution. Importantly, the inserter is adapted to insert this data stream into the VBI of the broadcast television signal. This combined signal is passed on to a transmission circuitry for encoding and transmitting the sequential data stream via an antenna in accordance with conventional broadcast practice.

'094 Patent, col. 4, ll. 13-22, 30-42.

[12] The Magistrate noted that the specification uses the term "decoder" to describe a device that extracts the data from the vertical blanking interval:

> The decoder means is particularly designed, to decode the transmitted data so as to reconstitute the database from the transmitted data.

'094 Patent, col. 4, ll. 50-52; col. 5, ll. 33-54.

not have a VBI.[13] It is clear to the Court that the inserter acts on the video signal before the combined video signal with embedded data is modulated for transmission.[14] Thus, the function of the inserter precedes the functions of transmission in the inapposite portions of the specification cited by Broadcast.

Moreover, the specification supports the construction of a decoder in that it describes a device that extracts data from the VBI. '094 Patent, col. 4, ll. 50-52; col. 5, ll. 33-54. Broadcast's argument that the terms were construed in a way that makes them incompatible is incorrect because the terms were defined in different claims. "Inserter" was specifically limited in the specification to a television and not radio, while "decoder" was not.

Dated this 29th day of August, 2003.

UNITED STATES DISTRICT JUDGE
SITTING BY DESIGNATION

[13] According to the Court's construction, Claims 22 and 29 make the claims applicable to a "commercial radio carrier signal." Broadcast contends that it is undisputed that a commercial radio signal has no VBI. (Castell Decl. ¶ 16, 22.)

[14] The inserter is a specific device that embeds data into a portion of a television video signal after the signal is created and prior to the signal's modulation on the RF frequency. '094 Patent, col. 4, ll. 36-39 ("the inserter is adapted to insert this data stream into the VBI of the broadcast television signal. This combined signal is passed on to a transmission means which includes appropriate modulation and transmission circuitry. . .").

EOD
UNITED STATES DISTRICT COURT
DENVER, COLORADO
SEP 04 2003
GREGORY C. LANGHAM
CLERK

CIVIL ACTION NO. 01-WY-2201 AJ (BNB)
Order
September 4, 2003

Certificate of Mailing

A copy of the attached Order on Appeal of Magistrate's Claim Construction of the '094 Patent, signed by Judge Alan B. Johnson on August 29, 2003, and was delivered to the following on Sept. 4, 2003,by:

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